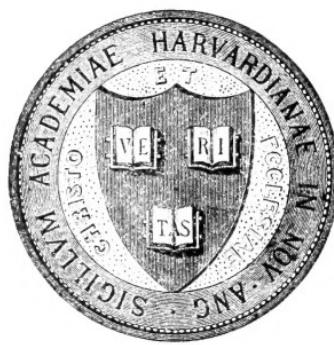




HARVARD UNIVERSITY.



LIBRARY

OF THE

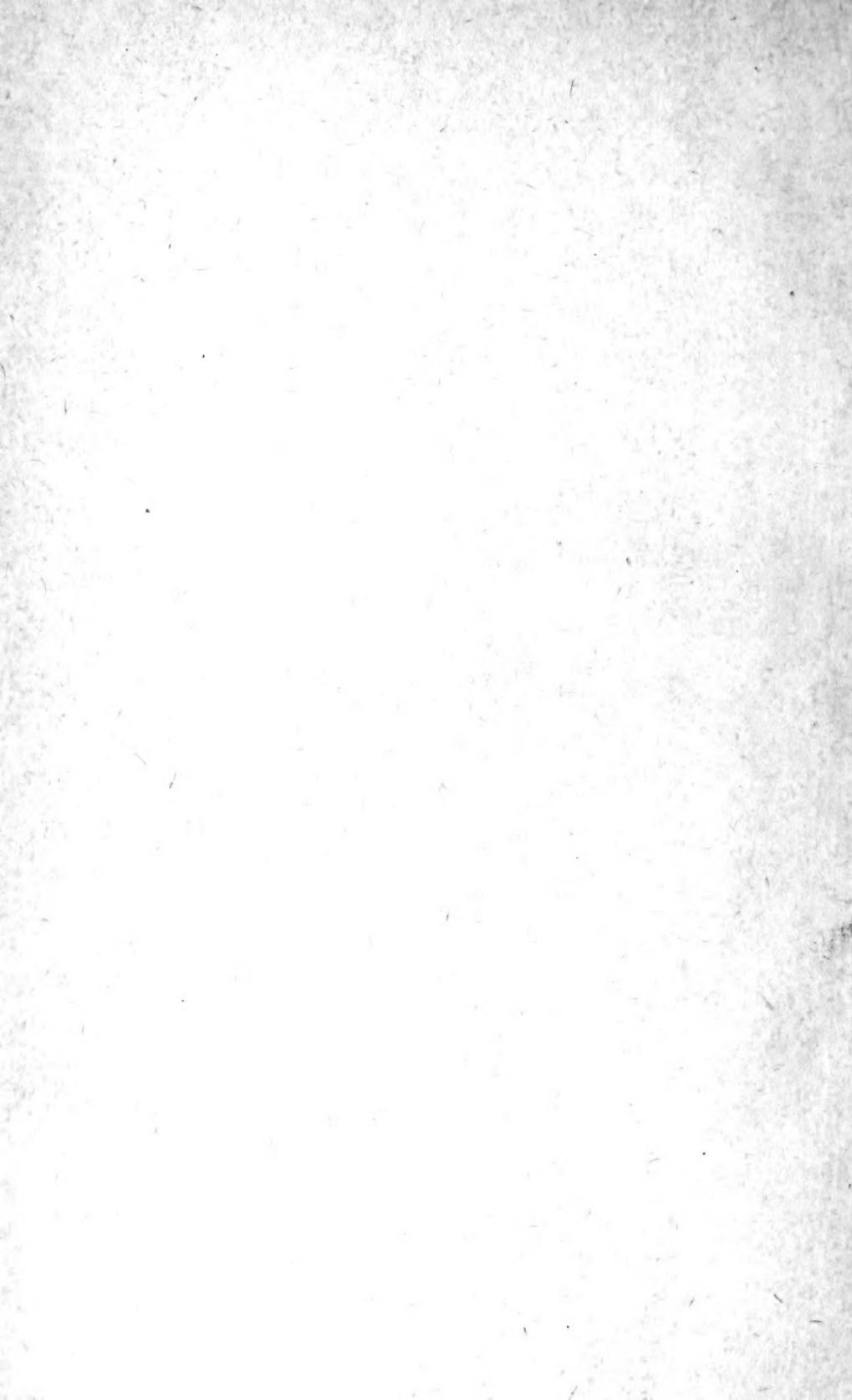
MUSEUM OF COMPARATIVE ZOOLOGY

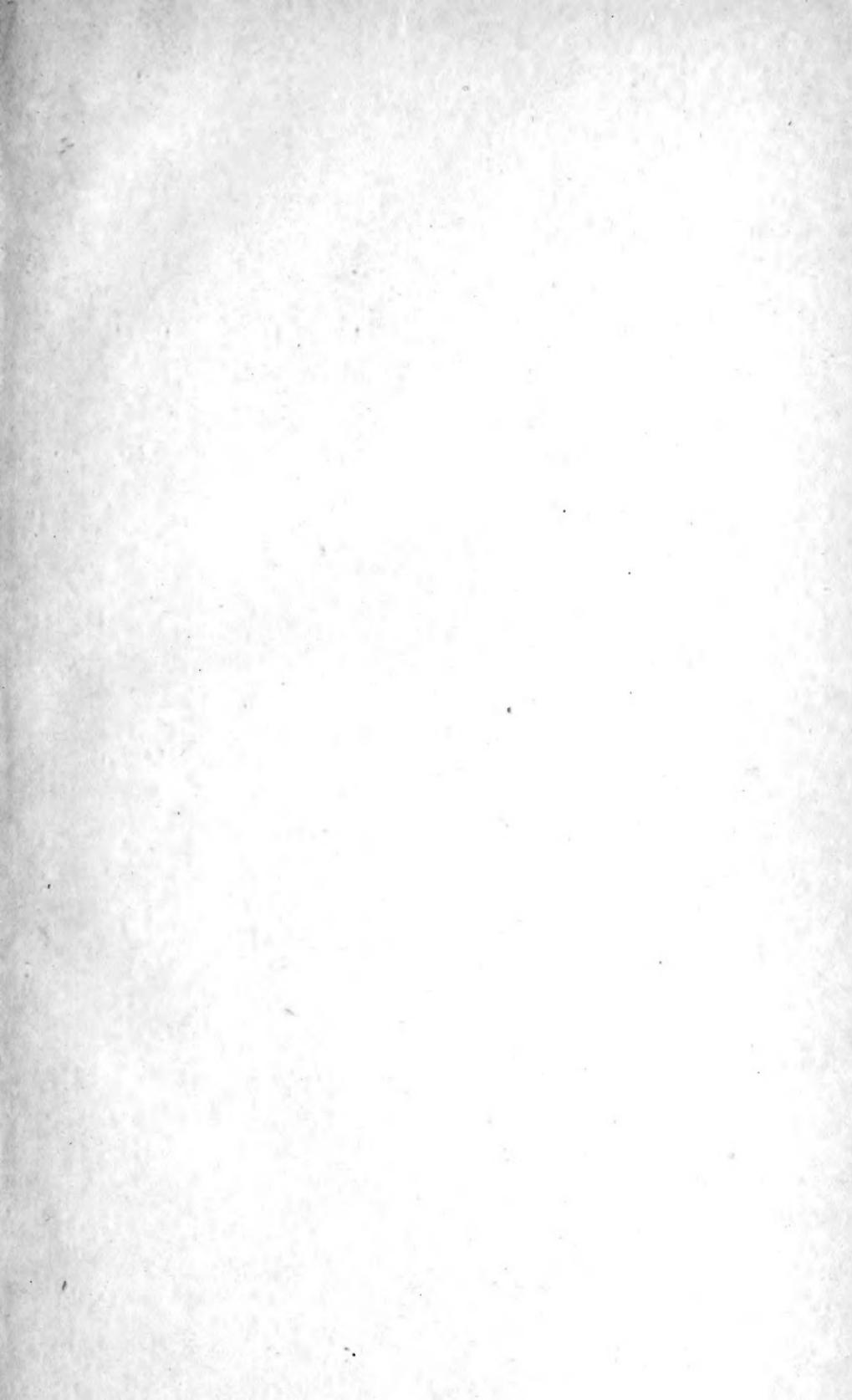
12-005

Exchange:

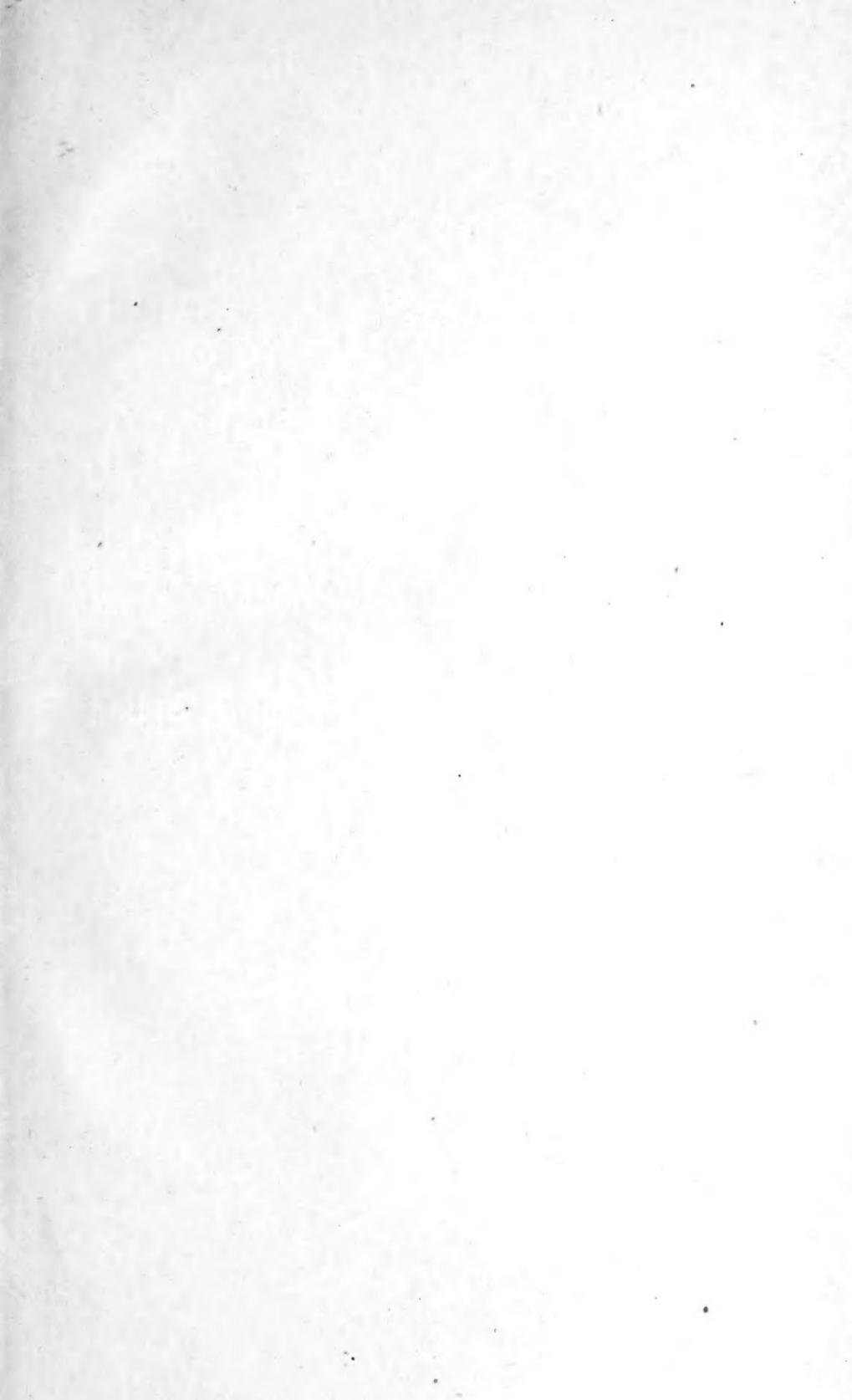
August 16, 1921.













JOURNAL OF THE TRANSACTIONS  
OF  
THE VICTORIA INSTITUTE.

---

VOL. XLVI.



JOURNAL OF  
THE TRANSACTIONS  
OF  
**The Victoria Institute,**  
OR,  
**Philosophical Society of Great Britain.**

---

*SECRETARY:* E. WALTER MAUNDER, F.R.A.S.

---

VOL. XLVI.



LONDON :

(Published by the Institute, 1, Central Buildings, Westminster, S.W.)

---

ALL RIGHTS RESERVED.

1914.

C.

LONDON :  
HARRISON AND SONS, PRINTERS IN ORDINARY TO HIS MAJESTY,  
ST. MARTIN'S LANE.

## PREFACE.

---

THE papers read before the Victoria Institute in the Session 1913–1914, and appearing in the present Volume, No. XLVI, of the Journal of the Transactions, have been concerned to a larger extent than usual with religious life in action, rather than with abstract philosophical discussions. The Right Reverend Bishop Welldon has set forth the supreme, indeed the unique, character of Christianity amongst religions ; and the Rev. H. J. R. Marston has insisted upon its supreme and unique doctrine, the doctrine of Atonement. The Rev. Chancellor S. B. McCormick, D.D., has drawn our attention to the influence of Christianity in that welding of many races into one great nation that is now proceeding in the United States ; and the Rev. Prebendary H. E. Fox has shown the need for the influence of Christianity in the development of new Japan, while Professor F. F. Roget, in his memoir of Godet, has presented us with a vivid sketch of a leading Christian pastor and theologian.

Biblical criticism, in its various departments, has not occupied so much space as in the programmes of the preceding two years, but has not been neglected. The Rev. Chancellor J. J. Lias has presented with admirable clearness the strong linguistic evidence for the early date of the Priestly Code ; and the incident of the taking of Babylon by Cyrus has been discussed by the Rev. A. Craig Robinson, and the accuracy of the references to it in the Book of Daniel completely manifested. The Rev. T. H. Darlow, in his paper on Versions of the Bible, has pointed out how essentially the Scriptures remain the Word of God in inspiration and power, no matter what the language into which they may be translated ; and similarly Mr. Maunder has endeavoured to bring out from the First

Chapter of Genesis the lessons it was originally designed to teach, lessons necessary for all men and independent of niceties of translation, and unaffected by any progress of Science.

In the field of Pure Science, Dr. Sydney Chapman presented a most important paper on the Number and Total Light of the Stars, and Dr. Pinches, in the department of Assyriology, gave a summary of the latest discoveries in Babylonia. The Institute was indebted for the Annual Address to Colonel Sir Charles M. Watson, whose illustrated lecture, on "Jerusalem : Past and Present," followed most appropriately Mr. Arthur W. Sutton's address in the previous year on "Suez to Sinai."

To the writers of these papers, which have sustained the high standard of interest and importance of previous Volumes of the Transactions, the hearty thanks of the Council are tendered, and also to those who have taken part in the discussions.

Since January five new members and 27 new associates have been elected. During the last two or three years there has been a marked increase in the attendances: this increase has been fully sustained during the past Session, and the Council desire to announce that they have removed their offices to 1, Central Buildings, Westminster, S.W., where they have been able to make more suitable arrangements to provide for this increased attendance.

Losses from death have been especially numerous and severe. Among the valued supporters whose help is thus lost to us, have been Sir David Gill, K.C.B., F.R.S., one of our honorary correspondents, and our Vice-President, the Right Honourable Lord Strathcona and Mount Royal. Nevertheless the year has been, on the whole, one of steady and satisfactory progress, and the Council feel a grateful assurance that they have been sustained and helped by the Divine Presence in the work of the Institute. They pray that the blessing of Almighty God may continue to rest upon their labours, and may go forth with the Volume which they now issue and would humbly dedicate to His service.

E. WALTER MAUNDER,

*Secretary.*

## CONTENTS.

---

	PAGE
<b>PREFACE</b> .... .... .... .... .... .... .... .... .... .... ....	<b>v</b>
<b>REPORT OF THE COUNCIL FOR THE YEAR 1913....</b> .... .... .... ....	<b>1</b>
<b>CASH STATEMENT FOR THE YEAR 1913 ....</b> .... .... .... ....	<b>7</b>
<b>ANNUAL GENERAL MEETING, HELD ON MONDAY, FEBRUARY 2ND, 1914, MR. DAVID HOWARD, V.P., IN THE CHAIR ....</b> .... .... ....	<b>8</b>
<b>THE FALL OF BABYLON AND DANIEL v, 30. BY THE REV. ANDREW CRAIG ROBINSON, M.A., DONNELLAN LECTURER, DUBLIN UNIVERSITY, 1912-1913</b> .... .... .... .... .... ....	<b>9</b>
<b>DISCUSSION. REMARKS BY</b> .... .... .... .... .... ....	<b>20</b>
<b>VERY REV. DEAN WACE,</b>	
<b>SIR ROBERT ANDERSON, K.C.B.,</b>	
<b>DR. T. G. PINCHES,</b>	
<b>VEN. ARCHDEACON POTTER,</b>	
<b>REV. JOHN TUCKWELL,</b>	
<b>COL. VAN SOMEREN,</b>	
<b>MR. M. L. ROUSE,</b>	
<b>PROFESSOR H. LANGHORNE ORCHARD,</b>	
<b>REV. CHANCELLOR LIAS,</b>	
<b>MR. JOHN SCHWARTZ, JUNR.,</b>	
<b>MR. E. WALTER MAUNDER.</b>	
<b>JAPAN, AND SOME OF ITS PROBLEMS, RELIGIOUS AND SOCIAL. BY THE REV. PREBENDARY H. E. FOX, M.A.</b> .... .... ....	<b>31</b>
<b>DISCUSSION. REMARKS BY</b> .... .... .... .... ....	<b>36</b>
<b>MR. M. L. ROUSE,</b>	
<b>LIEUT.-COL. G. MACKINLAY,</b>	

DISCUSSION—*continued.*

MR. JOHN SCHWARTZ, JUNR.,  
 CAPT. M. MCNEILE, R.N.,  
 REV. W. H. MURRAY WALTON,  
 GEN. J. G. HALLIDAY,  
 RT. REV. BISHOP S. THORNTON,  
 REV. T. H. DARLOW,  
 LIEUT.-COL. M. A. ALVES, R.E.,  
 PROFESSOR H. LANGHORNE ORCHARD.

PAGE

## THE CHRISTIAN DOCTRINE OF ATONEMENT. BY THE REV. H. J. R.

MARSTON, M.A.	....	....	....	....	....	....	....	43
---------------	------	------	------	------	------	------	------	----

DISCUSSION. REMARKS BY	....	....	....	....	....	....	....	52
------------------------	------	------	------	------	------	------	------	----

DR. J. W. THIRLTE,  
 MR. M. L. ROUSE,  
 REV. E. SEELEY,  
 REV. JOHN TUCKWELL,  
 MR. JOHN SCHWARTZ, JUNR.,  
 REV. A. COCHRANE,  
 REV. F. B. JOHNSTON,  
 REV. F. CECIL LOVELY,  
 PROFESSOR H. LANGHORNE ORCHARD,  
 SIR ROBERT ANDERSON,  
 REV. CHANCELLOR LIAS,  
 REV. A. IRVING, D.Sc.,  
 MR. W. WOODS SMYTH,  
 LIEUT.-COL. M. A. ALVES, R.E.,  
 MR. E. J. G. TITTERINGTON.

## IS THE SO-CALLED “PRIESTLY CODE” OF POST-EXILIC DATE? BY

THE REV. CHANCELLOR J. J. LIAS, M.A.....	....	....	....	....	63
--	------	------	------	------	----

DISCUSSION. REMARKS BY	....	....	....	....	....	79
------------------------	------	------	------	------	------	----

MR. HAROLD WIENER,  
 MRS. E. WALTER MAUNDER,  
 REV. CANON R. B. GIRDLESTONE,  
 MR. E. WALTER MAUNDER,  
 DR. J. W. THIRLTE,  
 REV. F. E. SPENCER,  
 MR. M. L. ROUSE,  
 PROFESSOR H. LANGHORNE ORCHARD.

	PAGE
<b>THE CHARACTER OF THE BIBLE INFERRED FROM ITS VERSIONS. BY THE REV. T. H. DARLOW, M.A., LITERARY SUPERINTENDENT OF THE BIBLE SOCIETY ....</b>	<b>87</b>
<b>DISCUSSION. REMARKS BY ....</b>	<b>97</b>
REV. CANON R. B. GIRDLESTONE,	
MR. PHILLIPS,	
REV. F. C. LOVELY,	
MR. P. F. WOOD,	
MR. M. L. ROUSE,	
MR. MARTIN,	
REV. J. SHARP,	
LIEUT.-COL. G. MACKINLAY,	
REV. J. GOSSETT-TANNER,	
REV. E. SEELEY.	
<b>THE NUMBER OF THE STARS. BY SYDNEY CHAPMAN, B.A., D.Sc., CHIEF ASSISTANT AT THE ROYAL OBSERVATORY, GREENWICH ....</b>	<b>103</b>
<b>DISCUSSION. REMARKS BY ....</b>	<b>115</b>
PROFESSOR D. S. MARGOLIOUTH,	
MR. E. WALTER MAUNDER,	
DR. F. W. DYSON, ASTRONOMER ROYAL,	
CAPT. M. MCNEILE, R.N.,	
MR. M. L. ROUSE.	
<b>THE FIRST CHAPTER OF GENESIS. BY E. WALTER MAUNDER, F.R.A.S. ....</b>	<b>119</b>
<b>DISCUSSION. REMARKS BY ....</b>	<b>142</b>
MR. D. HOWARD,	
MR. M. L. ROUSE,	
VERY REV. DEAN WACE,	
MR. W. WOODS SMYTH,	
DR. A. T. SCHOFIELD,	
PROFESSOR H. LANGHORNE ORCHARD,	
REV. JAMES THOMAS,	
MR. JOHN SCHWARTZ, JUNR.,	
REV. J. IVERACH MUNRO,	
DR. HEYWOOD SMITH,	
LIEUT.-COL. M. A. ALVES, R.E.,	
REV. A. IRVING, D.Sc.,	

DISCUSSION—*continued.*

- SIR ROBERT ANDERSON, K.C.B.,  
 REV. JOHN TUCKWELL,  
 REV. CHANCELLOR J. J. LIAS,  
 MR. JOSEPH GRAHAM,  
 MR. T. B. BISHOP.

THE LATEST DISCOVERIES IN BABYLONIA. BY THEOPHILUS G. PINCHES, LL.D., M.R.A.S. ....	167
DISCUSSION. REMARKS BY....	192
MR. D. HOWARD, REV. J. J. B. COLES, MR. M. L. ROUSE, COL. VAN SOMEREN, REV. F. A. JONES, REV. A. IRVING, D.Sc.	
FREDERIC GODET, SWISS DIVINE, AND TUTOR TO FREDERICK THE NOBLE. BY PROFESSOR F. F. ROGET ....	197
DISCUSSION. REMARKS BY ....	229
REV. H. J. R. MARSTON, M.A.	
THE COMPOSITE OF RACES AND RELIGIONS IN AMERICA. BY THE REV. S. B. McCORMICK, D.D., CHANCELLOR OF PITTSBURG UNIVERSITY, PENNSYLVANIA, U.S.A. ....	231
DISCUSSION. REMARKS BY ....	251
MR. E. J. SEWELL, LIEUT.-COL. M. A. ALVES, R.E., MR. M. L. ROUSE, MR. E. WALTER MAUNDER.	
THE SUPREMACY OF CHRISTIANITY. BY THE RIGHT REV. J. E. C. WELLDON, D.D., DEAN OF MANCHESTER ( <i>Summary</i> ) ....	255
DISCUSSION. REMARKS BY ....	259
REV. PREBENDARY H. E. FOX, LIEUT.-COL. G. MACKINLAY, MR. E. WALTER MAUNDER, MR. E. J. SEWELL.	

	PAGE
ANNUAL ADDRESS : JERUSALEM, PAST AND PRESENT. BY COL. SIR CHARLES M. WATSON, K.C.M.G., C.B., M.A. ( <i>Summary</i> )	.... 262
LIST OF MEMBERS AND ASSOCIATES	.... .... .... .... 271

---

\* \* \* *The object of the Institute being to investigate, it must not be held to endorse the various views expressed either in the Papers, or in the Discussions.*



# VICTORIA INSTITUTE.

---

REPORT OF THE COUNCIL FOR THE YEAR 1913.

READ AT THE ANNUAL GENERAL MEETING, FEBRUARY 2ND, 1914.

---

## 1. *Progress of the Institute.*

During the year just past, the Institute has sustained a most serious loss in the death of its Secretary, Mr. F. S. Bishop. To his energy and devotion much of the recent improvement in the position of the Institute has been due; and his removal from us has affected adversely the Report which the Council have to present as to the numbers upon the roll of the Institute, and its financial position. But for this untoward event, the past Session would probably have shown a continued improvement in both respects; and the falling off, though slight, which has to be reported, is chiefly to be ascribed to this cause. In other respects the work of the past Session has been most successful; the papers contributed to the Transactions have been of great interest and value, and the crowded attendances that they have attracted have rendered the question of securing for the Meetings ampler accommodation than that which our own rooms can afford one of pressing importance.

## 2. *Appointment of a New Secretary.*

The Institute has been fortunate in securing the services as Secretary of Mr. E. Walter Maunder, F.R.A.S., late Superintendent of the Solar Department, Royal Observatory, Greenwich, and author of several standard works on astronomy. Mr. Maunder is not only widely known as an astronomer, but he has also had experience in organization and in the conduct of a learned society, having founded in 1890 the British Astronomical Association, which he has since served as President, Editor, and in other capacities. He was also for five years one of the Secretaries of the Royal Astronomical Society. He is well known to the supporters of the Institute, as he delivered the Annual Address in 1908, and for the last four years has served on the Council.

### *3. Meetings.*

During the year 1913 twelve meetings were held. The papers read were the following :—

- “Present Day Factors in New Testament Study.” By the Rev. Canon R. J. KNOWLING, D.D.
- “The Fact of Prediction.” By the Rev. JOHN URQUHART.
- “Vision, in Sacred and other History.” By the Rev. JOHN HUNTLEY SKRINE, D.D.
- “Methods of Biblical Criticism.” By the Ven. Archdeacon WILLIAM SINCLAIR, M.A., D.D.
- “Pompeii : Life in the First Century A.D.” By E. J. SEWELL, Esq.
- “The Bearing of Archaeological and Historical Research upon the New Testament.” By the Rev. PARKE P. FLOURNOY, D.D. [The Gunning Prize Essay.]
- “The Samaritan Pentateuch, and Philological Questions connected therewith.” By the Rev. J. IVERACH MUNRO, M.A.
- “The Origin of Life—What do we know of it?” By Professor G. SIMS WOODHEAD, M.A., M.D., LL.D.
- “The Position and Principles of the Criticism of the Old Testament.” By the Very Rev. H. WACE, D.D., DEAN OF CANTERBURY.
- The Annual Address was delivered by ARTHUR W. SUTTON, Esq., J.P., F.L.S., who gave an account of his journey “From Suez to Sinai,” illustrated by 100 photographs exhibited by the lantern.
- “The Fall of Babylon, and Daniel v., 30.” By the Rev. ANDREW CRAIG ROBINSON, M.A.

A Meeting was also devoted to the discussion of the Gunning Prize Essay, and proved both interesting and profitable.

### *4. The Journal of Transactions.*

Volume XLV of the Transactions of the Institute was issued in December last and contained the papers, discussions and communications of the Session, December, 1912, to June, 1913. The Council desire to express their great indebtedness to Dr. J. W. Thirtle, who passed the Volume through the press, and to Mr. Arthur W. Sutton for the beautiful plates which he supplied in illustration of the Annual Address, “From Suez to Sinai.”

The papers contained in the Volume are almost wholly devoted to subjects bearing upon the Inspiration of Scripture, upon the present aspects of Biblical Criticism, and upon the light which recent archaeological and historical research have thrown upon these. The Council trust that the effect of the Volume will be to render clearer our apprehension of the nature and of the truth of Inspiration, and to strengthen our faith when we encounter difficulties, as yet unsolved, by the sight of difficulties, which in the past seemed insoluble, but have been made plain by fuller knowledge and research.

### 5. Council and Officers.

The following is the list of the Council and Officers for the year 1913:—

#### President.

The Right Honourable The Earl of Halsbury, M.A., D.C.L., F.R.S.

#### Vice-Presidents.

Sir T. Fowell Buxton, Bart., K.C.M.G.  
 David Howard, Esq., D.L., F.C.S. (*Trustee*).  
 Right Hon. Lord Strathcona and Mount Royal, G.C.M.G., LL.D.  
 Lieut.-Gen. Sir H. L. Geary, R.A., K.C.B.  
 Professor Edward Hull, M.A., LL.D., F.R.S., F.G.S.  
 Rev. Canon R. B. Girdlestone, M.A.  
 General Halliday.

#### Honorary Correspondents.

Sir David Gill, K.C.B., LL.D., F.R.S.  
 Professor Sir Gaston Maspero, D.C.L. (*Paris*). Professor Warren Upham, D.Sc.  
 Professor E. Naville, Ph.D. (*Geneva*). His Excellency Herr Fridtjof Nansen, D.Sc.  
 Professor A. H. Sayce, D.D., LL.D.

#### Honorary Auditors.

E. J. Sewell, Esq. | H. Lance Gray, Esq.

#### Honorary Treasurer.

Arthur W. Sutton, Esq., J.P., F.L.S.

#### Secretary and Editor of the Journal.

E. Walter Maunder, Esq., F.R.A.S.

#### Council.

(*In Order of Original Election.*)

Very Rev. H. Wace, D.D., <i>Dean of Canterbury</i> ( <i>Trustee</i> ).	Sydney T. Klein, Esq., F.L.S., F.R.A.S., M.R.I.
Rev. Chancellor J. J. Lias, M.A.	William J. Horner, Esq.
Theo. G. Pinches, Esq., LL.D., M.R.A.S.	A. T. Schofield, Esq., M.D.
Ven. Archdeacon W. M. Sinclair, M.A., D.D.	Heywood Smith, Esq., M.A., M.D.
Rev. John Tuckwell, M.R.A.S.	Rev. H. J. R. Marston, M.A.
Lieut.-Colonel G. Mackinlay ( <i>Chairman</i> ).	Ven. Archdeacon Beresford Potter, M.A.
Arthur W. Sutton, Esq., F.L.S., J.P.	J. W. Thirtle, Esq., LL.D., M.R.A.S.
Rev. Prebendary H. E. Fox, M.A.	E. J. Sewell, Esq.
Professor H. Langhorne Orchard, M.A., B.Sc.	Chancellor P. V. Smith, LL.D.
Rt. Rev. Bishop J. E. Welldon, M.A., D.D.	Frank W. Challis, Esq., M.A.

### *6. Election of Council and Officers.*

In accordance with the rules the following members of the Council retire by rotation, but offer themselves, and are nominated by the Council, for re-election :—

Lieut.-Colonel G. Mackinlay.

Professor H. Langhorne Orchard, M.A., B.Sc.

Sydney T. Klein, Esq., F.L.S., F.R.A.S., M.R.I.

William J. Horner, Esq.

A. T. Schofield, Esq., M.D.

Heywood Smith, Esq., M.A., M.D.

The Council nominate also Lieut.-Colonel M. A. Alves, R.E., and Alfred William Oke, Esq., B.A., LL.M., for election on the Council.

### *7. Obituary.*

The Council regret to announce the deaths of the following Members and Associates during the year :—

R. Bruce Foote, Esq., J. R. Hershenohnn, Esq., Rev. F. Ashwin, Rt. Hon. Earl Nelson, J. T. Matthews, Esq., W. Drake-Brockman, Esq., G. W. Munt, Esq., Frederic S. Bishop, Esq., M.A., J.P., our late Secretary, S. Joshua Cooper, Esq., Member of Council, the Ven. Archdeacon W. F. J. Kaye, M.A., Rev. G. H. W. L. Ross, the Rev. G. Stringer Rowe, Francis G. Smart, Esq., M.B., J.P., Miss G. Crewdson, M.A., Prof. J. Logan Lobley, F.G.S., Martin J. Sutton, Esq., J.P., F.L.S., Rev. C. Godfrey Ashwin, Sir Robert Ball, F.R.S., The Rev. J. C. Walter B.A.

### *8. New Members and Associates.*

The following are the names of new Members and Associates elected up to the end of the year 1913 :—

**MEMBERS.**—Miss F. Cruddas, The Rev. C. G. Monro, M.A., M.B., Williamson Lamplough, Esq., the Ven. Archdeacon Beresford Potter, Mrs. Bishop, John T. Burton, Esq.

**ASSOCIATES.**—Colonel G. J. van Someren, Dr. Eugene Stock, the Rev. L. G. Buchanan, M.A., the Rev. W. Hervey Woods, the Rev. W. Laporte Payne, Miss J. E. Williams, the Rev. George Denyer, Ronald MacGregor, Esq., Robert Gladstone, Esq., E. A. Benjamin, Esq., Prof. Theodore Flournoy (Life), the Rev. W. H. Saulez, B.D., Prof. J. Logan Lobley, F.G.S. (since deceased), Mrs. A. H. Pelly, Captain M. McNeile, R.N., T. Isaac Tambyah, Esq., Harry G. Munt, Esq., John B. Martin, Esq., Miss J. Winstone, Miss M. Vickers, B.Sc., Miss Edith Grindley, Ivan Panin, Esq., Miss Selina F. Fox, M.D., B.S., the Rev. W. J. Heaton, B.D., J. E. Solade-Solomon, Esq., the Rev. G. H. Lancaster, M.A., F.R.A.S., Miss F. Wolsey, Mrs. Maunder (Life), W. H. S. Monck, Esq., W. St. G. Grantham-Hill, Esq., M.D., M.R.C.S., Rev. W. H. Murray Walton, B.A., Robert Kerr, Esq.

*9. Numbers of Members and Associates.*

The following statement shows the number of supporters of the Institute at the end of December, 1913:—

Life Members	...	...	...	28
Annual Members	...	...	...	103
Life Associates	...	...	...	66
Annual Associates	...	...	...	296
Missionary Associates	...	...	...	20
Hon. Corresponding Members	...	...	...	90
Library Associates	...	...	...	24
				—
Total				627

showing a net decrease, after allowing for deaths and retirements, of 5 on last year's return.

*10. Finance.*

The statement of Receipts and Expenditure attached hereto compares not unfavourably on the whole with that of the preceding year. The total expenditure in 1913 exceeded that in 1912 by £1 11s. 7d., but certain items, amounting in the whole to £16 16s., will not recur in the year on which we have just entered. The unpaid bills also, carried forward to 1914, are £31 17s. 9d. lower than those brought forward from 1912. But on the other hand, the receipts in 1913 have only sufficed to meet the expenditure through the donations received for the Special Fund, *viz.*, £52 16s. 3d. The prospect for the coming year is satisfactory so far that the ordinary income may be expected to meet the ordinary expenditure.

*11. Special Fund.*

The Special Fund, above alluded to, was inaugurated by the Council at their Meeting on December 9th, 1913, in order to secure funds to enable them to place the finances of the Institute upon a more satisfactory basis, and to make provision for larger audiences than can at present be suitably accommodated in its rooms. It will be noticed that in the current Session arrangements have been made that six of the Meetings shall be held in the Hall of the Royal Society of Arts. A prompt response was made to this Appeal, by several Members and Associates, and the total amount received when the Annual Account was made up on December 31st, 1913, was £52 16s. 3d.,

the subscriptions in detail received up to that date being as follows :—

Miss E. H. Bolton, £5 ; the late S. Joshua Cooper, Esq., £5 18s. ; Miss Florence Cruddas, £5 ; J. F. W. Deacon, Esq., £1 ; Mrs. Farquharson, 5s. ; Dr. J. C. M. Given, £1 1s. ; George A. Gutch, Esq., £1 ; William J. Horner, Esq., £2 2s. ; David Howard, Esq., £10 ; Joseph Howard, Esq., £1 1s. ; Prof. Edward Hull, F.R.S., £1 ; the Rev. Canon Knowling, £1 10s. ; Lt.-Colonel G. Mackinlay, £2 ; Miss Amy Manson, £1 ; Prof. H. Langhorne Orchard, M.A., £1 1s. ; the Ven. Archdeacon Beresford Potter, £5 ; the Rev. W. Percy Schuster, £1 ; Sir Alexander R. Simpson, M.D., £1 ; Arthur W. Sutton, Esq., £6 18s. 3d.

The Council trust that the Fund, which has thus opened so satisfactorily, will continue to be liberally supported.

### 12. *Auditors.*

The Council desire again most cordially to thank Messrs. Sewell and Lance Gray for their kind services as Auditors.

### 13. *Conclusion.*

As time goes on, the Council feel that the work of the Institute has necessarily undergone some change of character. In days gone by, the forces of unbelief were militant and aggressive, striving to detach professing believers from their faith. Now the chief influences hostile to faith are indifferentism, and complete preoccupation in material interests : a materialism, that is to say, which is practical rather than intellectual. In the intellectual field, aggressive unbelief has been succeeded by a vague, patronizing assumption that Progress has left behind, as an outworn, old-time superstition, the belief in a direct Revelation from God to man. To combat this requires more faith, more patience, more effort and devotion, than were called for by the earlier phases of the struggle. In view of this necessity the Council would ask that every subscriber, whether Member or Associate, would do his or her best to gain more adherents, more workers for the Institute. In particular, the Council would invite those who sympathize with the objects of the Institute to join it as Members, for the very condition that Membership is confined to professing Christians, offers to such the opportunity and privilege of a practical declaration that their faith in the Divine Revelation is a reality, and enables them to bear a quiet but significant testimony.

Signed on behalf of the Council,

HALSBURY.

CASH STATEMENT for the year ending December 31st, 1913.

There is a Capital sum of £500 2½ per cent. Consols, also the Capital of the Gunning Trust Fund, £508 Great India Peninsular Railway Stock.

There are unpaid bills carried forward amounting to £148 17*s.* 9*d.*

We have verified all the accounts and compared them with the books and vouchers and found them correct.

E. J. SEWELL  
H. LANCE GRAY

January 12th, 1914.

THE ANNUAL GENERAL MEETING  
OF THE  
VICTORIA INSTITUTE  
  
WAS HELD IN THE ROOMS OF THE INSTITUTE ON  
MONDAY, FEBRUARY 2ND, 1914, AT 4 O'CLOCK.

---

MR. DAVID HOWARD, Vice-President, took the Chair.

The Minutes of the last Annual General Meeting were read and confirmed.

The SECRETARY read the notice calling the Meeting, and the Report and Statement of Accounts presented by the Council, having been circulated among the Members present, were taken as read.

The Rev. A. M. NIBLOCK then proposed, Mr. R. D. RICHARDSON, of Winnipeg, seconded, and Mr. M. L. ROUSE supported, the following resolution :—

“That the Report and Statement of Accounts for the year 1913 presented by the Council be received and adopted, and the Officers named therein be elected, and that the thanks of the Meeting be given to the Council, Officers and Auditors for their efficient conduct of the business of the Victoria Institute during the past year.”

The resolution was carried unanimously, and the CHAIRMAN returned thanks to the Meeting on behalf of the Council, Officers and Auditors.

The Rev. JOHN TUCKWELL proposed a hearty vote of thanks, which was carried by acclamation, to Mr. Howard for presiding, and the CHAIRMAN having replied, the Meeting adjourned at 4.20 p.m.

## 548TH ORDINARY GENERAL MEETING.

HELD IN THE ROOMS OF THE INSTITUTE ON TUESDAY,  
DECEMBER 9TH, 1913, AT 4.30 P.M.

THE VERY REVEREND THE DEAN OF CANTERBURY OCCUPIED  
THE CHAIR UNTIL 5.30, WHEN LIEUT.-COLONEL G. MACKINLAY  
TOOK HIS PLACE.

The Minutes of the preceding Meeting were read and confirmed, and the elections were announced of the following Associates and Member :—Miss Edith Grindley, Mr. Ivan Panin, Miss Selina F. Fox, M.D., B.S., Rev. W. J. Heaton, B.D., Mr. J. E. Solade-Solomon, Rev. G. H. Lancaster, M.A., F.R.A.S., Rev. W. H. Murray Walton, B.A., Miss Florence Wolsey, Mrs. Annie Scott Dill Mauder (Life), Mr. Robert Kerr, Mr. Wilfred St. George Grantham-Hill, M.D., Mr. W. H. Stanley Monck, M.A., Mr. John T. Burton (Member).

---

*THE FALL OF BABYLON AND DANIEL V*, 30. By Rev.  
ANDREW CRAIG ROBINSON, M.A., Donnellan Lecturer,  
Dublin University, 1912-13.

BEFORE the archaeological discoveries of recent times the Book of Daniel had been, for probably over 2,000 years, the only extant evidence for the existence of Belshazzar. The Bible was in regard to this matter a single witness, unsupported by any evidence outside itself, and it was open to any rationalist who chose to reject the evidence of the Bible to assert that such a person as Belshazzar never existed, but was merely a creation of the imaginative fancy of the writer of the Book of Daniel. All that, however, is now changed, and by the discovery of the contemporary inscriptions of the Age of Cyrus the reality of the existence of Belshazzar as a personage of history is placed beyond the power of scepticism to deny.

When Cyrus in his career of conquest in Western Asia marched against the Babylonian Kingdom the name of the Babylonian king was Nabonidus—called by the Greeks Labynetus—and he was in the seventeenth year of his reign. Belshazzar was his son, and was probably associated with his father in the kingly power. His name very frequently appears in the inscriptions as “the son of the king”; and he would seem to have been dearly loved by his father, who in one of his inscriptions offers up an earnest prayer to his god for the

welfare of Belshazzar and calls him "his eldest son the offspring of his heart." The Annalistic Tablet, one of the principal inscriptions of this period, for several successive years records that "the king's son and the nobles were with the army in Accad" (Northern Babylonia). To these nobles, with whom he was thus so intimately associated in the army for many years, Belshazzar perhaps gave that memorable banquet in Babylon recorded in the 5th Chapter of the Book of Daniel, "Belshazzar the King made a great feast to a thousand of his lords and drank wine before the thousand"—a banquet to the chiefs of the army. Several contract tablets record business transactions of "Belshazzar the son of the king" (*Records of the Past*, New Series, vol. iii, pp. 125–127), and there are records also of his offerings to the temples of the gods. The Annalistic Tablet, as we have seen, informs us that for several years in succession Belshazzar was in command of the army in Northern Babylonia, whilst his father, Nabonidus, remained in Babylon. Subsequently he and his father would appear to have exchanged places—his father taking command of the forces in the field, and suffering a signal defeat from the army of Cyrus—whilst Belshazzar remained in Babylon, where, the Book of Daniel tells us, he was holding a brilliant banquet to his lords on the night that the city fell. "On that night," says the Book of Daniel, "was Belshazzar the King of the Chaldeans slain."

But it has now come to be treated as if it were a commonplace of history, and one of the "assured results" of modern criticism that these words in the Book of Daniel, and the general account of the fall of Babylon which has come down to us in the writings of the classical historians, are contradicted by the inscriptions.

How has this impression been created?

The general account of the Fall of Babylon which has come down to us from antiquity may be put in this way:—The classical authorities say, that the Babylonians after one encounter with the troops of Cyrus, in which they were worsted, retired within the walls of Babylon which seemed to be impregnable, and within which there had been stored up provisions for many years. Cyrus then invested Babylon. He commanded his soldiers to dig deep trenches surrounding the city, as if he were throwing up lines of circumvallation; but contrived that these trenches should be dug in such a way that at a moment's notice the waters of the River Euphrates could be turned into them, and the depth of the river so much reduced in that part where it flowed through the city, that his soldiers

should be able to advance through the water and enter the city by the river gates. The Babylonians, secure within the walls of Babylon, "took no heed," Herodotus says, "of the siege"—whilst Xenophon says, "They laughed at the Persians, and turned them into ridicule"—so the work of digging the trenches went on without any attempt on the part of the besieged to interfere with it;—and the siege was consequently carried on "without fighting." This bloodless character of the siege—as described by the classical writers—is an important point to note.

And Herodotus says, that when Cyrus had set these things in order, he himself went away with the inefficient part of his army, and employed it in diverting the river at another point into a marshy lake. This absence of Cyrus from the principal scene of operations is another point to be particularly noted.

But when the trenches were dug, Xenophon relates, Cyrus selected a night on which he heard there was to be some great feast held in Babylon, and as soon as darkness fell, taking a number of his troops, he caused the trenches to be opened, the water from the Euphrates poured into them, and soon the river became shallower. Then Cyrus commanded two of his most trusted officers, Gôbryas and Gadatas, to lead the troops up the river, now rendered shallow at its banks, and to enter the city by the river gates.

It was a night of festival in Babylon, the streets were full of revellers. The soldiers of Gôbryas, assuming the guise of revellers themselves, mingled in the crowd—pressed on to the palace—burst in through the guards at the palace gates—and reached the hall where the King was. They found him, when they entered, standing up sword in hand—but he was soon overpowered by numbers, and fell slain by the soldiers of Gôbryas. Such would appear to have been Belshazzar's tragic end.

Cyrus instantly sent cavalry through the city, and caused it to be proclaimed that, on pain of death, none of the Babylonians should leave their houses. Next morning all arms and the towers of the city were surrendered; Cyrus held a great reception, at which the Babylonians, Xenophon says, attended in unmanageable numbers—and thus, almost without fighting or bloodshed, Babylon was his. The Cyrus Cylinder, one of the principal inscriptions of that time, in remarkable agreement with this says, "The men of Babylon, all of them, and the whole of Sumer and Accad, the nobles and the high priest, bowed themselves beneath him, they kissed his feet, they

rejoiced at his sovereignty, their countenances shone—and when the same inscription says, that “without fighting and battle (Merodach) caused him to enter into Babylon,” this is in reality not a contradiction of the classical account, but a confirmation of it, because that account represents Babylon as having been taken practically without fighting, since the siege was conducted without any attempt on the part of the Babylonians to oppose it—and on the night in which the city was captured only Belshazzar and those immediately around him were slain.

This would seem to be clearly the case—yet Professor Sayce, strange to say, took up the idea—which he put forward, first in his edition of Herodotus, published in 1883, and afterwards in his celebrated book, *The Higher Criticism and the Monuments* (1894), that the classical account of the Fall of Babylon, and the 5th chapter of Daniel, verse 30—which seemed to agree with it—were contradicted by the account of that event implied by the inscriptions—the special point being, that the classical account related how there was a siege of Babylon lasting for some months—whereas the cuneiform inscriptions declare that the city fell “without fighting.”

Professor Sayce wrote—

“There was no siege and capture of Babylon; the capital of the Babylonian Empire opened its gates to his general, as Sippara had done before. Gôbryas and his soldiers entered the city ‘without fighting.’ . . . Three months later Cyrus himself arrived, and made his peaceful entry into the new capital of his empire. We gather from the contract tablets that even the ordinary business of the place had not been affected by the war.”—*Higher Criticism and the Monuments*, p. 522.

And in a note on the same page he adds—

“Even after the entry of Gôbryas into Babylon on the 16th of Tammuz, the contracts made there and at Sippara continued to be dated in the reign of Nabonidos.”

And then he gives the dates of certain tablets, published by Dr. Strassmaier, which shall be referred to presently. He adds—

“It is clear that the transference of power from Nabonidos to Cyrus must have been a peaceful one, so far as the commercial community was concerned.”

And he writes, p. 527—

“It is clear that the editor of the fifth chapter of the Book of Daniel could have been as little a contemporary of the events which he professes to record, as Herodotus.”

It may well be imagined with what avidity the Critics pounced upon these pronouncements of Professor Sayce: all the more that they supplied a crumb of comfort in a book which otherwise was in great measure a drastic attack on their theories. Thus the late Dean Farrar in a work of his, *The Book of Daniel*, published in 1895, which may be described as an impassioned attack on the conservative view, quotes, on p. 56, the above passage from Sayce—with many emphatic italics. Dr. Driver in his *Daniel* (p. xxxi) takes the same view, and all the rest of the Critics have followed in a similar strain.

The following are the most important passages in the “Annalistic Tablet”—the principal inscription bearing on the Fall of Babylon—according to the translation adopted by Dr. Driver—

“In the month of Tammuz (July) when Cyrus in the city of Upê (Opis), on the banks of the river Zalzallat, had delivered battle against the troops of Akkad, he subdued the inhabitants of Akkad. . . . On the 14th day of the month, Sippar was taken without fighting. Nabu-na’id (Nabonidos) fled. On the 16th Gubaru (Gôbryas), governor of the country of Guti, and the soldiers of Cyrus, without fighting entered Babylon. In consequence of delaying Nabu-na’id was taken prisoner in Babylon. . . . On the 3rd day of Marchesvan (November) Cyrus entered Babylon. . . . Peace for the city he established, peace to all Babylon did Cyrus proclaim. Gubaru (Gôbryas) his governor appointed governors in Babylon. From the month of Kislev (December) to the month Adar (March—*viz.*, in the following year, 537—*Driver*) the gods of the country of Akkad, whom Nabu-na’id had brought down to Babylon, returned to their own cities. On the 11th day of Marchesvan during the night, Gubaru (Gôbryas) made an assault (?) and slew the King’s son (?).”

Dr. Driver adds in a note—

“The tablet is injured at this point, but ‘the king’s son’ is the reading which those who have most carefully examined the tablet consider the most probable.”

In respect, then, to the Fall of Babylon, three points are maintained by the Critics at the present day:—

First, that on the 16th Tammuz (July) Gôbryas obtained complete possession of Babylon for his master Cyrus. Secondly, that notwithstanding this the merchants of Babylon continued to date their contract tablets “in the 17th year of Nabonidus, King of Babylon.”

Thirdly, that although his general Gôbryas had obtained full possession of Babylon on the 16th of Tammuz (June-July), it was not until three months after—on the 3rd Marchesvan (Oct.-Nov.)—that Cyrus “entered Babylon.”

To the present lecturer it seems that it would be passing strange, that when the capital of the Babylonian empire, and by far the most famous city in Western Asia, had come into his power, Cyrus should treat the matter with such cool disdain, as not to condescend to visit it until three months had passed away. It was not *his way* to treat the conquered peoples with discourtesy. The sentiment also in ancient times in a case like this, as between a king and his lieutenant, may be well illustrated by the message that Joab, captain of his host, sent to King David, when he found that the city of Rabbah was practically in his hands, and by David’s action on receiving the message: “I have fought against Rabbah,” Joab announces, “and have taken the city of waters. Now therefore gather the rest of the people together and encamp against the city and take it, lest I take the city and it be called by my name. And David gathered all the people together, and went to Rabbah, and fought against it, and took it.”—II Sam. xii, 27–29.

And then, too, in regard to the second point asserted—namely: that after Gôbryas had gained complete possession of Babylon for his master Cyrus, the merchants of Babylon continued to date their contract tablets in “the 17th year of Nabonidus, King of Babylon,” as if nothing had happened, and as if the conqueror Cyrus was not then the reigning king—one may well ask, “Is this likely? Is it likely that the merchants of Babylon would be so foolish as to flout their new master by thus ignoring his sovereignty? and if they *were* so silly would Gôbryas have stood such nonsense?”

And then there is a further point which, on the supposition that Gôbryas in the month of Tammuz (July) obtained full possession of Babylon, would have to be explained, and that is: What does that mysterious passage in the Annalistic Tablet mean, where it is said, “On the 11th day of Marchesvan”—that is to say, 8 days after Cyrus had entered Babylon—“during the night Gubaru (Gôbryas) made an assault (?) and slew the king’s son (?).” Does not this look very like what the Book of Daniel says in the 5th chapter, “In that night was Belshazzar the King of the Chaldeans slain.” For do not the inscriptions say that Belshazzar was the king’s son?

and does not the Book of Daniel say that Belshazzar was slain at night?

Dr. Pinches writes—

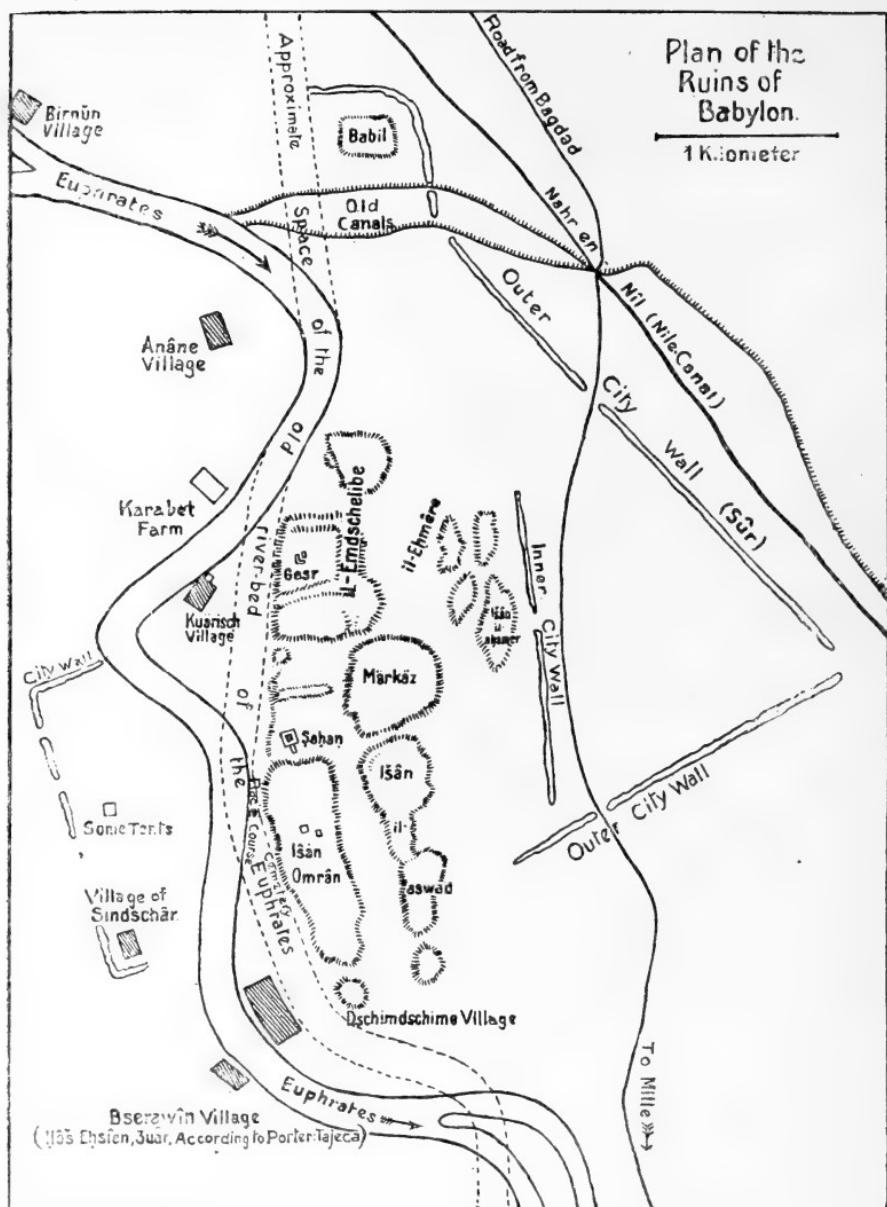
“The probability is therefore that ‘the son of the king’ Belshazzar, held out against the Persians in some part of the capital, and kept during that time a festival on the 11th of Marchesvan, when Gôbryas pounced upon the place, and he the rightful Chaldaean king was slain as recorded in Daniel.”—*The Old Testament in the Light of the Historical Records of Assyria and Babylonia*, pp. 418, 419.

The solution of the whole matter seems to be afforded by the plans of the ruins of Babylon showing the course of the walls, illustrating Weissbach’s *Stadtbild von Babylon*, published by Hinrichs, Leipzig, by whose kind permission they have been reproduced by the present lecturer. The plans show that there was a not inconsiderable portion of the city enclosed with walls, situated on the western bank of the Euphrates; but the main portion of Babylon, containing the royal palace and the great temples, was on the eastern shore of the river. What therefore occurred at the taking of Babylon by Cyrus would seem to have been this: On the 14th of the month Tammuz (June-July) Sippar was taken, and King Nabonidus, who would appear to have been in it, fled. He probably crossed the river in escaping from the Persians, and took refuge in that part of the city of Babylon which was on the western side of the Euphrates. Gôbryas and the Persians pursued him, and two days after—on the 16th of the month—the citizens opening the gates to the enemy, the king was captured. Thus in the words of the inscription:—“On the 16th day Gôbryas . . . and the soldiers of Cyrus without fighting entered Babylon. In consequence of delaying Nabonidus was taken prisoner in Babylon.”

This outlying portion of the city on the western side of the river would seem to have been regarded by Nebuchadnezzar as an outwork of Babylon. In the India House Inscription he says—

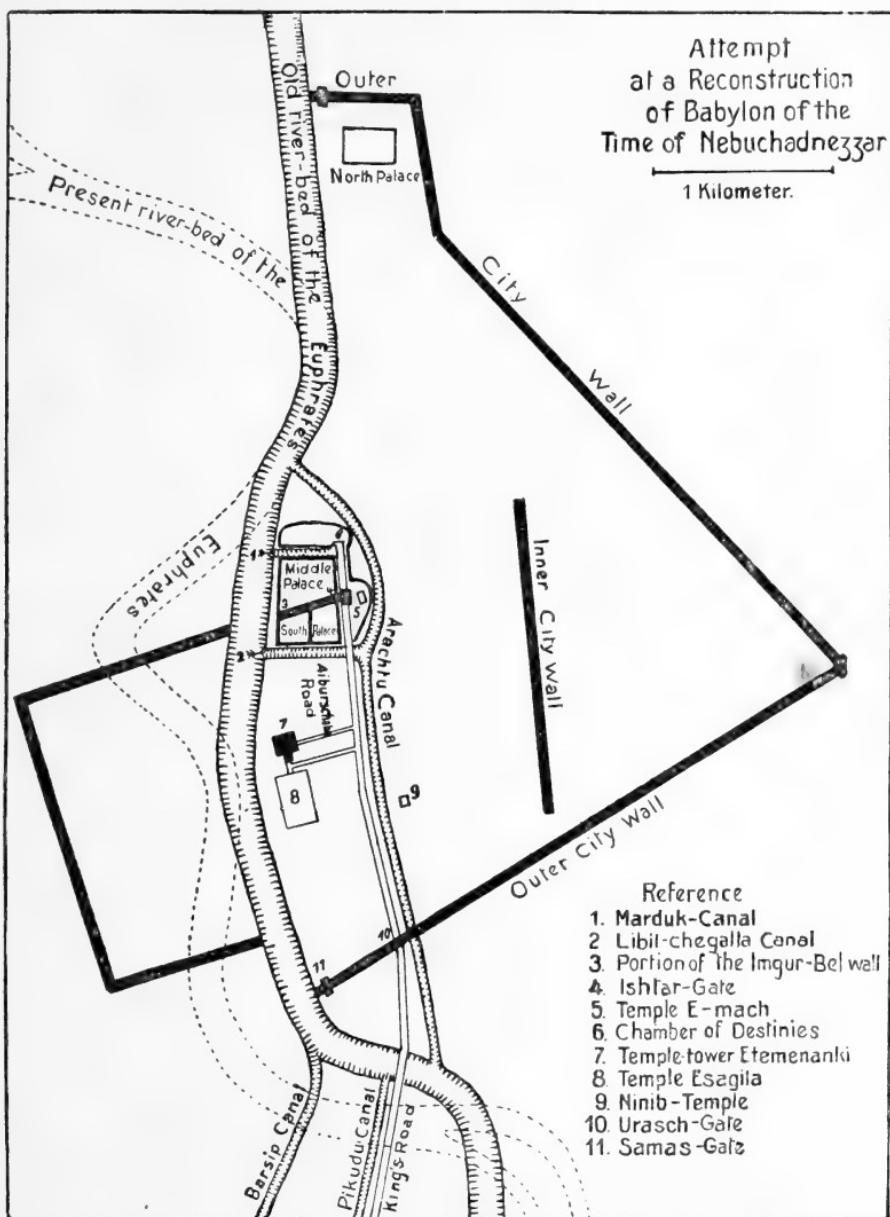
“and to the city for protection I brought near an embankment of enclosure beyond the river westward.”—*Records of the Past*, 1st Series, p. 125.

On this view Gôbryas had, it is true, “entered Babylon,” but he was very far indeed from having really gained possession of



PLAN OF THE RUINS OF BABYLON.

Reproduced by kind permission of J. C. Hinrichs, Leipzig, from Weiszbach's *Stadtbild von Babylon*.



## ATTEMPT AT A RECONSTRUCTION OF BABYLON.

Reproduced by kind permission of J. C. Hinrichs, Leipzig, from Weiszbach's *Stadtbild von Babylon*.

the mighty city. He would find himself confronted by the River Euphrates—in breadth not much short of 200 yards—that is to say, about the width of the Thames at Chelsea—its further shore lined with immense embankments—behind which was the real Babylon.

King Nebuchadnezzar, some 70 years before in one of his inscriptions would seem to have described the position by anticipation. Boasting of the fortifications which he had thrown up to defend Babylon, he says—

“Great waters like the might of the sea I brought near in abundance, and their flowing by was like the sweeping past of the billows of the Western ocean—passages through them there were none, but mounds of earth I heaped, and embankments of brickwork I caused to be constructed.”—*Records of the Past*, 1st Series, p. 128.

There, in that eastern part of the city, secure for the moment from the enemy, Belshazzar, son of the king, reigned—and there the merchants of Babylon carried on their business transactions, and dated their tablets on which those transactions were recorded—safe from any interference of Gôbryas—on such a day of the month “in the 17th year of Nabonidos, King of Babylon.” Three months then elapsed before Cyrus “entered Babylon”—and those three months afforded time for the siege recorded by the classical writers, during which the soldiers of Cyrus round Babylon were digging the trenches—no very great task for a large army in the alluvial soil of Babylonia—whilst Cyrus himself—as recognized in the Annalistic Tablet—was absent—employing (so Herodotus says) the inefficient part of his army in further reducing the waters of the Euphrates by turning them into a marshy lake.

Then on the third of the month Marchesvan (Oct.-Nov.)—the tablet says—“Cyrus entered Babylon”—and soon the decisive blow was struck; for after this occur the words in the Annalistic Tablet—“on the 11th Marchesvan during the night Gubaru (Gôbryas) made an assault (?) and slew the king’s son (?).”

That was the night when the trenches were opened, the Persian troops, under the shadow of the mighty mounds defending the eastern bank of the river, stealthily advanced through the shallower waters—entered the city by the river gates—and Babylon was taken, and Belshazzar slain.

That this was the night on which Babylon really came into the power of Cyrus is shown to demonstration by the fact that all the contract tablets dated previous to the 11th Marchesvan

are dated in "the 17th year of Nabonidus, King of Babylon"—whilst all those dated later than the 11th of that month are dated in "the Accession year of Cyrus." Gôbryas is said to have "entered Babylon" on the 16th day of Tammuz (June-July) and yet there is a tablet dated the 22nd of that month "in the 17th year of Nabonidus, King of Babylon." Others are dated in the same way on the 5th, 21st, and 29th of Ab (July-Aug.) and on the 3rd, 5th, 11th, 18th, 21st, and 28th of Elul (Aug.-Sept.).

Surely Babylon cannot have been held for Cyrus yet.

On the third Marchesvan (Oct.-Nov.) the Annalistic Tablet records "Cyrus entered Babylon"—yet even after this there is a tablet dated 10th Marchesvan "in the 17th year of Nabonidus, King of Babylon." On the very next night—the night of the 11th Marchesvan—that occurrence took place recorded on the Annalistic Tablet—

"On the 11th of Marchesvan in the night Gubaru (Gôbryas) made an assault and slew the King's son."

And after this occurs the first tablet dated in "the Accession year of Cyrus." It is a tablet—to be seen in the case at the British Museum—referring to workmen's rations—and it is dated the 24th Marchesvan "in the Accession year of Cyrus." Another occurs in the next month Chislev (Nov.-Dec.) dated "Babylon 7th Chislev in the Accession year of Cyrus."

In the note already referred to Professor Sayce writes—

"It should be added that the contracts dated in the reign of Nabonidus which were witnessed on the 21st of Ab and the 5th of Elul were drawn up in 'the city of the king's palace Babylon'—whilst one dated the 7th Chislev of the Accession year of Cyrus is simply inscribed 'Babylon.'"

Does it not seem as if the words "the city of the king's palace Babylon" were intended to define the city of Babylon on the eastern side of the river, where the king's palace was—as distinguished from Babylon on the western side of the river—then in the hands of Cyrus.

In conclusion the present lecturer would claim to have laid before you an array of solid facts which clearly show—that so far from the account of the Fall of Babylon, which has come down from the classical writers, being contradicted by the cuneiform inscriptions of the Age of Cyrus—they are, on the contrary, *confirmed* by them. And accordingly the 5th chapter

of the Book of Daniel and 30th verse, which seems to imply the same account, *is also*—not contradicted—but confirmed by the inscriptions; and the words of the Book of Daniel, with all that they imply, stand unrefuted, “In that night was Belshazzar the King of the Chaldeans slain.”

#### DISCUSSION.

The CHAIRMAN, in opening the Meeting, previous to the reading of the paper, said that since their last Ordinary Meeting the Victoria Institute had suffered a severe loss in the death of its Secretary, Mr. F. S. Bishop, M.A., J.P. During the three years that he had held that office, Mr. Bishop had worked most devotedly for the welfare of the Institute, and the result of his labours had been seen in the enhanced interest of the Meetings, and in the increase in the roll of Members and Associates. But the Institute was fortunate in securing as his successor Mr. Maunder, who had just retired after forty years' service from his important post as Superintendent of the Solar Department of the Royal Observatory, Greenwich. The Institute had been founded for the discussion of questions in philosophy and science, and it was therefore to be congratulated in having secured as its Secretary a man of scientific eminence, one who had already served on the Council of the Institute for four years, and had contributed two papers to their Proceedings.

After the paper had been read, the CHAIRMAN said that he desired, on behalf of the Institute, to offer his hearty thanks to the Rev. Andrew Craig Robinson for the admirable paper to which they had just listened. He was glad to see that Dr. Pinches was present, who was so high an authority on Babylonian inscriptions, and that there was also present another veteran in the controversy on the Book of Daniel—Sir Robert Anderson. That controversy presented features similar to those respecting the Book of Genesis. It was only seventy years since they first began to gain from the excavations light upon the ancient history of Babylonia; but, long before that, every child in a Christian household was acquainted, from what he had read in the Book of Genesis, with the most important facts concerning the origin of the Assyrian and Babylonian kingdoms. In the same way, the facts which were now being established respecting the Conquest of Babylon proved to have been those implied in the Book of Daniel.

Sir Robert ANDERSON said that the paper had cleared up difficulties which he had felt in the course of that study of Daniel, which had led to his publishing his book on the subject, more than thirty years ago. With reference to Daniel v, 30, seeing that it was held by some that the true reading of the Annalistic Tablet was "the wife" (not the son) "of the king died," he had referred to the British Museum, and learned that the gap in the tablet at this point left enough space for the word "son," but not for the word "wife." The fact that the decree of Cyrus for the building of the Temple was found in Ecbatana (*Ezra vi, 2*), afforded seemingly conclusive evidence of the identity of Gôbryas with Darius the Mede. He was a prince of the royal house of Media, and it is to be presumed that, after his three years' reign as vassal King of Babylon, he was sent back to his own country, and carried with him the archives of his reign.

"The historical errors" of Daniel, paraded by our English critics, were all taken from Bertholdt's book of more than a century ago; and though every one of these "errors" had been disposed of by the researches or by the erudition of our own times, the critics had as yet offered no apology or retraction.

Dr. PINCHES said: Mr. Craig Robinson has made my views clearer as to the events leading up to the taking of Babylon, and I feel that my thanks are due to him for this. It is a long time since I first made acquaintance with the Annalistic Tablet. I remember sitting, more years ago than I care to count, in Dr. Birch's room at the British Museum, with a large tray of tablets before me, when Sir Henry Rawlinson, who was present, speaking of the one that I was examining, said, "You ought to find the name of Astyages there." And there, in fact, it was—one or two strokes of the brush revealed it—in the document in question—the Annalistic Tablet. I do not propose to discuss here the chronology of the Book of Daniel, which offers several difficulties, but the accuracy of the narrative therein is remarkable. The classical writers state that great excavations were made in order to drain the river (the Euphrates), but the tablets give no indications of this. With regard to the discrepancy in the names of the kings, it is to be noted that Belshazzar, according to Josephus, was called Nabonidus by the Babylonians (*Antiq., X, xxi, 2*), "Baltasar, who by the Babylonians was called Naboandelus," but the inscriptions show that the former

was son of the latter. According to Xenophon, the Babylonians came and welcomed Cyrus, and this is supported by the Annalistic Tablet, which states that the crowds before him were great (or the deputations were numerous), and that they proposed peace for the city, saying : "Cyrus, grant peace to Babylon, all of it."

Fried. Delitzsch, in his description of Babylon, says that the area within the walls was no greater than that covered by Munich or Dresden. The plate accompanying the paper shows the plan of the old wall, but there was a greater Babylon outside this wall, just as there is a greater London outside the old City of London. Gôbryas of Gutium, that is to say of Media, took all Babylon outside the walls at his first approach, but the contract tablets, which cannot lead us astray, as they are contemporary documents, bear dates, as has been stated by the lecturer, right up to the eve of the taking of Babylon (that is, the old city) on the night of the 11th of Marchesvan, in the seventeenth year of Nabonidus. One tablet, found in Sippar, is dated in Chislev in this year, and I think points to an error in the Annalistic Tablet ; for if the Persians had taken possession of Sippar (*see p. 12*) before they took Babylon, this contract tablet would not exist. Moreover, Berossus says that Nabonidus was captured in Borsippa.

The passage in the Annalistic Tablet that refers to the events of the 11th day of Marchesvan cannot, I think, have stated that the king's wife was killed, for where the tablet is damaged there is not room enough for the character for "wife," and the verb, to all appearance, is not in the feminine. The Rev. C. J. Ball and Dr. Hagen, examining the text in my room in the British Museum, many years ago, agreed with me that the traces pointed to *u mār*, "and the son of" (King Nabonidus).\*

I do not think that there is any doubt that the narrative in Daniel is as correct as it can be. With regard to Daniel being appointed third ruler, it was pointed out long ago that Nabonidus was, of course, the first, his son Belshazzar the second, and the third place was open for Daniel. Belshazzar was not officially king, unless perhaps he bore some subordinate title, and the title "King of the Chaldeans" may have been such.†

---

\* This reading was adopted by Dr. Pinches in his address delivered at Rhyl Church Congress, October 1891.

† Nebuchadrezzar (Nebuchadnezzar) seems always to be called "King

The Venerable Archdeacon POTTER said that he had listened with great pleasure to Mr. Craig Robinson ; the more so as he came from his own old university.

Notwithstanding the undoubted contribution make by the author towards the reconciliation of the conflicting accounts of the taking of Babylon, several difficulties in the narrative still, in his view, remained unexplained. (1) The Book of Daniel called Belshazzar the son of Nebuchadnezzar, whereas there were three kings with short reigns between Nebuchadnezzar and Nabonidus. This could be explained away by assuming that the latter married a daughter of the former, and that the word "father" stood for the word "grandfather," or possibly for "predecessor," but it seemed somewhat strange to omit the name of the real father, Nabonidus, who was apparently a man of some literary distinction. (2) Then the Book of Daniel called Belshazzar the king, whereas he was the son of the king. (3) Moreover the account in this book of Belshazzar's feast gave no hint that at that time the city of Babylon was partly in the hands of the conqueror. Nor was it easy to reconcile with this fact the promise, made to the interpreter of the writing, that he should be the third ruler in the kingdom ; or the words of the interpretation, "Thy kingdom is divided and given to the Medes and Persians." (4) It looked, too, as though the writer of the book had confused Darius the Mede (Dan. v, 31) with Darius Hystaspes, as the latter did divide the empire into satrapies (*see* Dan. vi, 1). (5) Moreover the late origin of the book seemed to be demanded by the use of Persian and of Greek words, and by the fact that Jesus, the son of Sirach (B.C. 200), while he mentions all the other prophets, omits Daniel.

Rev. John TUCKWELL, M.R.A.S., felt deeply indebted to the Rev. Craig Robinson for his paper. He thought that, among modern Biblical critics, there was a danger of placing too much reliance upon the Greek historians and upon the tablets. Might they not give equal credit to Scripture ? Why, if a statement in Scripture seemed opposed to some Greek writer, or to a Babylonian tablet,

---

of Babylon" (*melek Babel*) in the Old Testament when his title is given. Belshazzar, however, is called "King of the Chaldeans" (*malkā Kasdāyā* or *Kasdūāh*. Dan. v, 30). Whether this is owing to the text being in Chaldee, and not in Hebrew, is uncertain.

should they at once conclude that the Scripture must be wrong ? In the British Museum we had 150,000 tablets and tens of thousands in other collections all over the world ; yet up to the present time he did not know of a single case in which a cuneiform tablet had disproved any historical incident recorded in Scripture. With regard to Belshazzar being called the son of Nebuchadnezzar, among neither the Babylonians nor the Greeks did the expression "son" always mean the direct offspring. Nabonidus himself called Naram-Sin the "son" of Sargon, yet we had learnt from a tablet recently discovered that two kings reigned between them, so that he may well have been a grandson or some other relation. In the first chapter of Matthew, Joram is said to have begotten Ozias ; yet he was his great-great-grandfather. We needed to guard against the error of forcing our own narrow meanings upon the expressions of ancient writers, and should seek to find the meaning which the writers themselves intended. It was quite a mistake to suppose that the tablets were infallible ; moreover, the records upon the historical tablets, such for instance as those of Sargon and Esarhaddon, were not always arranged in chronological order.

Concerning the suggestion that, because Darius the Mede is stated to have appointed governors (Dan. vi, 1), he has thereby been confused with Darius Hystaspes, it would be found on page 13 of the present paper that Gubaru is distinctly stated to have appointed "governors *in Babylon*,"--an expression which does not preclude the possibility that their jurisdiction may have been much wider than the city, and have extended over the whole country.

Col. Van SOMEREN said that, as regarded the deciphering of inscriptions, he felt hardly qualified to take part in the discussion ; but he believed in the verbal inspiration of the Bible. Might not the title "King of the Chaldeans," given to Belshazzar, be like the title "Prince of Wales" given to the eldest son of the King of England ? He would like to ask whether "Tidal, King of Nations," mentioned in Gen. xiv, should not be literally, "Tidal, King of Gutium." If so, was he a King of Media ?

Mr. Martin ROUSE believed that the "queen" who came in to advise Belshazzar at the banquet whereat his wives were already present, was the true queen, the wife of Nabonidus. This introduction of her as "the queen" without qualification, like the

unexplained promise of Belshazzar that Daniel should rule as “one of three” in the kingdom, was a touch that indicated the contemporary historian.

It was absurd to cavil at the use of the word “father” for “grandfather,” as the Hebrews had no word for the last relation, but freely used “father” instead. For instance, in II Samuel ix, 7, both Jonathan and Saul are called the “father” of Mephibosheth.

Xenophon, alone among the Greek writers, mentioned the fact recorded in the Annals that Gôbryas, or Gubaru, was the chief leader of the final attack upon Babylon in which the “king’s son” perished. Since he alone gave this name correctly, why should we suppose him to be romancing when he says that after the capture of Babylon, Cyrus visited Ecbatana and there told Cyaxeres, King of Media, that a house “had been chosen for him in Babylon and a ruler’s palace, so that when he went thither he might come to this, as to his own household” (*Cyrop.* viii, 5, 17). Josephus tells us that, before Cyrus himself, his kinsman, Darius, King of Media, son of Astyages, reigned for a while, and that he was “known to the Greeks by another name”; no doubt the name that Xenophon supplies—Cyaxeres. He, therefore, and not Gôbryas, a mere deputy of Cyrus, was probably that “Darius the Mede” who “took the kingdom.” Darius the Mede is called “king” a score of times in Dan. vi, and his final decree is quoted as made for “every dominion of his kingdom,” and intended to be read in “all languages.” It was noteworthy that in Dan. v and vi we read of “Medes and Persians”; but at a later period in Esther i, we find Persia set before Media [Moreover a Greek scholiast tells us that the Persian gold coin, the “daric,” was so called after an earlier king than Darius Hystaspes, and Lenormant points out that in Babylonian and Chaldean contracts, Cyrus is designated only “king of the nations” in the first and second years after the capture of the city, but thereafter is called “King of Babylon” as well.]\*

In answer to Archdeacon Potter’s objection that certain Greek words occur in Daniel, these are confined to three, or at most four, musical instruments bearing Greek names, and may well have been imported from the great Greek cities on the coasts of Asia Minor.

---

\* Added subsequently.

The Greek poet Terpander invented the seven-stringed *cythara* about the year 650 B.C., and the Assyrian bas-reliefs show it in use as early as the reign of Assurbanipal (668–625 B.C.).

Professor LANGHORNE ORCHARD complimented the lecturer very heartily on the lucidity of his paper, in which he had solved a difficulty. The paper contained a warning against forming conclusions on insufficient evidence ; that so highly competent a scholar as Professor Sayce should have fallen into the error of supposing the statement “without fighting” necessarily implied that there was no siege of Babylon, and no capture of it, was a warning to others to be on their guard lest their conclusions should be unstable, ready to be overturned by a fresh fact.

The CHAIRMAN proposed a hearty vote of thanks to the Rev. A. Craig Robinson, and called upon him to reply.

The LECTURER was very grateful for the kind reception which had been given him ; he was glad that he had been able to clear up a difficulty. Above all he felt grateful to God, and in every work of this kind he sought His help and looked to Him for direction and light. He had felt sorry to have to contest any conclusion reached by Professor Sayce, for he had the highest appreciation of the splendid services which, by his many researches, he had rendered to our understanding of Holy Scripture. He fully concurred with the points which Mr. Rouse had brought before them. “Son” often simply means “successor”; thus on the Black Obelisk of Shalmaneser, Jehu is called the “son of Omri,” although so far from being the son or descendant of Omri, he was the usurper who brought his dynasty to an end. No doubt Mr. Rouse was correct in his suggestion that the queen who came into the banquet house at Belshazzar’s feast was none other than the wife of Nabonidus ; also in thinking that Darius the Mede was Cyaxeres ; the old traditions mentioned by Josephus very specially connected Daniel with Media.

#### SUBSEQUENT COMMUNICATIONS.

The Rev. Chancellor LIAS writes :—

The Members of the Institute are indebted to Mr. Robinson for showing that the Annalistic Tablet, fairly interpreted, confirms, instead of contradicting, the history of the fall of Babylon given in the Book of Daniel and in the Greek historians. There is no

improbability in the idea that Gôbryas may have captured the portion of the city on the west bank of the Euphrates, and may have received instructions from Cyrus to delay further operations till he arrived. There seems some doubt about the translations "assault," and "king's son." But surely, as matters stand at present, the translations which harmonize with the statements of the Hebrew and Greek authorities are more likely to be correct than those which place these statements in direct opposition to one another.

Mr. JOHN SCHWARTZ, Jun., writes:—

Our lecturer's new point of view that the Persians only entered without opposition into the western side of Babylon, while the eastern main portion resisted for some months, is very ingenious. The classical account of the lowering of the level of the Euphrates by diverting trenches, receives some support from the fact that this river, like the Nile, rises considerably during the summer months, when the snows around its source are melting, but in the month of November, when the entry was effected, it would be at its lowest. There are, however, difficulties; the Euphrates was a very rapid stream, so rapid that in those days navigation against stream was impossible, and it seems very doubtful whether such a stream could be rendered fordable even by a stupendous diversion of water. It is also difficult to imagine that such work could be carried on without the knowledge of the besieged. Passing over the fact that it is rather straining language to state that a force is "not fighting" when besieging a city, the statement quoted from the Annalistic Tablet, "on the 14th day of the month, Sippar was taken without fighting . . . on the 16th . . . the soldiers of Cyrus, without fighting entered Babylon," surely points to the abdication of Nabonidus, who had usurped the throne and incurred the hatred of the local priesthood by forcing the cult of Merodach as supreme. Professor Sayce's statement that the editor of Dan. v could not have been a contemporary was based on much more vital points than those referred to by our lecturer. The monuments show that the editor was incorrect in stating that Belshazzar was the son of Nebuchadnezzar, that he was a king of Babylon, and that he was succeeded by Darius the Mede. Professor Sayce seems to me to demonstrate that the editor was mixing up the siege of Babylon by Darius Hystaspes later on, with this earlier war.

Mr. MAUNDER writes :—

Mr. Schwartz's objections have force only against Herodotus and Xenophon and the Annalistic Tablet ; though I think that their narratives are not those that he really wishes to call in question.

The Annalistic Tablet tells us that on the night of the 11th of Marchesvan "Gôbryas made an assault and slew the king's son" ; and the business contracts make it clear that it was immediately after this date that the city of Babylon recognized its change of masters ; for up to that date the contracts are dated in the 17th year of Nabonidus ; after it, in the accession year of Cyrus. The entry of Gôbryas into Babylon "without fighting," on the 16th day of Tammuz had not effected any such change ; nor the entry of Cyrus himself on the 3rd day of Marchesvan. Clearly, then, the 11th of Marchesvan was the date of an event of much higher importance than either, and marks the real "Fall of Babylon."

Turning to the accounts of Herodotus and Xenophon, both agree in ascribing the capture of Babylon to the lowering of the water in the Euphrates by the diversion of much of it into trenches, so that a river, usually more than 12 feet deep, was rendered easily fordable. The account in Xenophon is well worth considering, for he was one of the ablest soldiers of his time, and an earnest student of military operations. He describes Cyrus as having first attempted an investment of the city, but finding that his forces were unduly weakened by the length of the line over which they were extended, he gradually and most skilfully concentrated them. Herodotus supplies the information that the concentration took place at the two points where the Euphrates entered and left the city. It is manifest that this manœuvre would have been suicidal unless the city on one side or the other of the Euphrates had been already in the hands of the Persian troops. Incidentally therefore, the Greek accounts confirm the suggestion of the Lecturer that the "Babylon" entered by Gôbryas on the 16th of Tammuz, and by Cyrus on the 3rd of Marchesvan, was only the relatively small suburb on the west bank, not the main city. In any case a traveller, like Herodotus, so well acquainted with the Babylon and Euphrates of his day, and a soldier so experienced as Xenophon, have a far higher claim to acceptance than the mere *a priori* objections of those who live 2,300 years later and know nothing personally of the river and country.

The great merit of the paper presented to us is that, by one simple and natural suggestion, all the evidence relating to the taking of Babylon by Cyrus, supplied by the classical historians, by the Scriptures, and by the various cuneiform inscriptions, are brought together into a coherent, intelligible and accordant narrative.

#### LECTURER'S REPLY.

In reply to Archdeacon Potter—

(1) Nebuchadnezzar was called Belshazzar's father, probably as being his predecessor in the Babylonian kingdom, just as Shalmaneser on the Black Obelisk calls Jehu the son of Omri. Nabonidus was, of course, not mentioned by the Babylonian queen, because it was at the court of Nebuchadnezzar that Daniel was distinguished. (2) Belshazzar was probably associated with his father Nabonidus in the kingdom. (3) The mysterious writing on the wall surely shows that Daniel knew the desperate state in which the Babylonian kingdom stood that night, but to Belshazzar's thoughtless court, all things seemed to be the same as they had been for three months past. (4) Was Darius Hystaspes the first king who ever divided his kingdom into subordinate governments? (5) With regard to the Greek words in the Book of Daniel, I must refer to a book of mine, “What about the Old Testament?” If Jesus, the son of Sirach, omits any mention of the Book of Daniel, the prophet Ezekiel mentions Daniel himself.

In reply to Mr. Schwartz—

Mr. Schwartz is perfectly correct in saying that the Euphrates is at its lowest in November, the month in which the strategy of Cyrus was carried out. He doubts whether a very rapid stream, like the Euphrates, could be rendered fordable even by a stupendous diversion of water. But it must be remembered that in this case there was no question of crossing the river by fording: the Persians were already on the eastern side of the river, besieging the city; all they required, in order to reach the river gates of Babylon, was that the river should be rendered shallower close to the eastern bank. The Euphrates appears to have had at all times a facility for wandering from its bed; and Cyrus had already, at a point higher up, turned a great quantity of the water into a marshy lake. Now he

suddenly caused a further great volume of the water to flow into the “very wide and deep trenches” which his army had dug. We know how, by the receding of the tide, the southern shore of a great river like the Thames is left quite bare; and we can therefore understand how the water at the eastern shore of the Euphrates—though by a different agency—could have been so reduced in depth that the soldiers of Cyrus could advance along it ; the water, according to Herodotus, reaching to their thighs.

Xenophon has explained very particularly how Cyrus concealed from the besieged the stratagem which he planned. Where the trenches approached the river he left a space on which he erected towers, resting on immense palm trees laid across the space, under which, later on, communication could be opened with the river. Thus the Babylonians could not suspect that the trenches had any reference to the river whatsoever. Even to his own officers, Cyrus pretended that he was going to reduce the city by famine.

Mr. Schwartz refers to the policy adopted by Nabonidus, by which he seems to have become unpopular, of bringing the images of the gods from other cities into Babylon. Now the Annalistic Tablet shows that this policy of Nabonidus continued down to the month Elul (Aug.-Sep.); that is to say, for more than two months after Gôbryas had entered Babylon, and Nabonidus had been captured. But from the month Chislev (Nov.) the reverse policy of Cyrus was carried out, and the images restored to their cities. So that previous to the 11th Marchesvan, the policy of Nabonidus continued; after the 11th Marchesvan, the policy of Cyrus began ; pointing again to that night as the date upon which Babylon fell.

Mr. Schwartz's statement with regard to Professor Sayce is too indefinite to call for an answer. The points with regard to Belshazzar have been already dealt with. The question of Darius the Mede is not so simple as suggested, but I have fully discussed it in my book, “What about the Old Testament ?” to which I must refer Mr. Schwartz for my answer.

## 549TH ORDINARY GENERAL MEETING.

HELD IN THE ROOMS OF THE INSTITUTE, ON MONDAY,  
JANUARY 19TH, 1914, AT 4.30 P.M.

PROFESSOR H. LANGHORNE ORCHARD, M.A., TOOK THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed, and the election was announced of Mr. W H. Baxter and Mr. David A. F. Wetherfield as Members, and of Mr. John Sterry and the Rev. James Gossett-Tanner as Associates.

---

*JAPAN, AND SOME OF ITS PROBLEMS, RELIGIOUS  
AND SOCIAL.* By the REV. PREBENDARY H. E. FOX,  
M.A.

A NY attempt to construct a theory of racial evolution from apparent resemblances between the inhabitants of the British and Japanese Islands, arising from similar conditions, would at once be defeated by the evidences of larger and more numerous contrasts. Each nation represents a mixture of several races, each is protected by sea girdling barriers, each has long had a high civilization, each has maintained a strong patriotic spirit, and for many generations no hostile force has been allowed to set foot on the shores of either. But in religion and in art, and, till quite lately, in intellectual and scientific development, Great Britain and Japan lie far apart. Englishmen, though they have been leaders in world enterprise, and the discovery of new lands, are by nature cautious and not easily moved. The Japanese is emotional, and recently has shown himself quick to learn, and ready to absorb and assimilate everything that is new. Yet while Britain was sending her navies into every sea, and her travellers and traders into every land, and planting her flag in all parts of the world, Japan had shut herself up, and held no intercourse, except in some rare

instances, with any other people, and only since the great reaction in the present generation has she extended her possessions to Formosa, Corea and Saghalien. A feudal system, not unlike that which held rule in Western Europe in the middle ages, came to an end in Japan within the memory of old men still living. And, though she can build her own Dreadnoughts and has shown a military genius which startled the world, her representative government is still in its elementary stages. We are all familiar with the term "Bushido," or the spirit of Japan, more literally, the way of the Bushi or knight. But as it is a key to many of the problems, social and religious, which modern Japan presents, a brief reference to its origin and development may be useful. It has grown out of an earlier genius. About the seventh century of the Christian era, a warrior clan, inhabiting the central portion of the main Island, named Yamato, gained supremacy over its neighbour tribes, driving some to the North, and welding the rest into one kingdom under the rule of its own chief.

Dr. GRIFFIS, referring to this, says: "The spirit and prowess of these early conquerors have left an indelible impress upon the language and the mind of the nation in the phrase—YAMATO-DAMASHII—the spirit of (Divine and Unconquerable) Japan . . . The Yamato men gradually advanced to conquest under the impulse, as they believed, of a divine command. . . . They claimed that their ancestors were from Heaven, that the Sun was their kinswoman, and that their chief, or Mikado, was vice-regent of the heavenly gods, but that those whom they conquered were earth-born or sprung from the terrestrial divinities.\*

In successive generations this elementary spirit of race superiority crystallized into the narrower features of a feudal system, and the original religion which had been more or less animistic, or a worship of the wonderful in nature, added to it by degrees new worship in the reverence shown to the departed spirits of tribal chiefs, and this afterwards grew into an actual worship of their Lord, the Mikado, the living representative of his deified ancestors. This religion, if it can be so called as recognizing some link between the higher and lower world, has had little influence in the direction of morals. It has no ethical code and supplies no motive for the control of natural instincts. Naturally, any sense of a divine righteousness, and the need of salvation, is wholly absent from the purely Shinto mind. The

---

\* *Religions of Japan*, p. 44.

loyalty and patriotism, which have from early times been so manifest among the Japanese, probably had their root, as the virtues of most non-Christian people have, in self interest, corporate and individual.

Buddhism, in its original form as taught by Sakyamuni, has still less claim than Shintoism to be counted as a religion. Monier Williams denies that it is such, and describes it as "a mere system of morality and philosophy founded on a pessimistic view of life."<sup>\*</sup> But its later developments, known as Mahayana or Higher Buddhism, found in China and afterwards in Japan, give evidence of the invariable refusal of the religious instinct of mankind to be satisfied with negations, powerless precepts, and the absence of a concrete object of worship. The abstract Buddha is everywhere present, but has countless manifestations; one or many, sometimes a triad, are given the highest place in their pantheon. Images of these abound, from the gigantic figure at Kamakura to a tiny charm on a necklace. A spacious hall in a temple at Kyoto is filled with them.

A central figure of superhuman proportions, seated in the well-known attitude, which irresistibly suggests the contrast with Him who "went about doing good," has on either hand 1,500 life-sized standing figures gilded, and each in some slight particular differing from the others. The popular Buddha is Amida, who is regarded as a real person, both Creator and Preserver, the Lord of life and the all Merciful Father. He is said to have lived a perfect life on earth, and when by labour and suffering he had acquired sufficient merit, he departed to the Western Paradise, where he will receive the faithful, till by further progress they reach the ultimate Nirvana. Connected with him are two other principal Buddhas, Kwannon the goddess of mercy and Seishi the god of might.

Though the conclusions which Dr. Richard draws from such facts in his recent book, which he calls "The New Testament of Higher Buddhism," are exaggerated and misleading, it is quite possible to find what seem to be traces of some Christian influence which had been carried, perhaps by Nestorians, to China in the fourth or fifth century after Christ. But it must have been a teaching either grievously defective on the part of those who gave it or as seriously mutilated by those who received it. Its doctrine is that of a tritheism, not of the Trinity. It has nothing to say of sin and its remedy, of atonement and reconciliation, still less of the work of the Divine Spirit as given in

---

\* *Buddhism*, p. 539.

the Christian Scriptures. Buddhism has been quite ready to accommodate itself to Shintoism, and instead of opposing the earlier religion of the country, succeeded in persuading the people to believe that the two were the same under different names and forms.

It is common to hear an educated man say that he is just as much a Buddhist as a Shintoist, and can accept a good deal of Christianity as well. Conciliatory, however, as Buddhism shows itself to-day, it cannot repress the bitterness which prevails between the sects within it, and it certainly incited the rulers of Japan to the persecutions and terrible atrocities inflicted for many years on the first Christian Missionaries and their converts.

But all these things belong to the past. No other nation has passed through so great transitions in so short a time as those which living men have seen in Japan. The Mikado is no longer a mystery. Daimios and Samurai exist only in pictures and poetry. The last of the Shoguns died in obscurity a few weeks ago. In the lobby of the Y.M.C.A. house in Kyoto, the old capital of Japan, I saw hanging one of the old notice boards bearing the proclamation against Christianity, and offering high rewards for the capture of Christian priests and people, and side by side with it a frame containing an autograph letter from the late Emperor, in which he heartily thanked the Association for the services its members had rendered to the sick and wounded during the war and enclosed a contribution of £1,000 to its funds.

Changes of a less satisfactory character are increasing. The simple habits of life which have so long characterized Japan are giving place among the wealthier classes to the luxury which has been imported from other lands. The educational system, which has been highly developed by the government, is entirely secular.

The moral precepts inculcated in Imperial Rescripts are excellent, but are based on no religious principles.

The portrait of the Emperor, to which in every school at stated times the pupils are instructed to pay a reverence amounting almost to worship, is a surviving reminder of the old Yamato Damashii, or the later Bushido. And yet, notwithstanding the Materialism and Rationalism spreading rapidly under European and American influence, it must be admitted that the Japanese, as a whole, are still a religious people. The nature of their piety is not, perhaps, as intensive as that which we expect in ours, but it is certainly genuine. During the last few days

of the late Emperor's life I was staying at Nikko, a sacred centre, where many ancient shrines, both Shinto and Buddhist, side by side, recall a brilliant past. It was a touching sight to see the people of all degrees, and also classes of children led by their teachers, coming thither all day long, singly and in groups, to offer their prayers to the unknown spirits on behalf of the dying Mikado. From the roofs of some of the temples there hung long strips of white cotton, inscribed with prayers, so that each passer-by might pause for a moment and make the petitions his own.

Underneath their light-hearted manner, it cannot be doubted that still in the heart of many a Japanese there is a yearning for something higher and better than he can find on earth. The patch of paper on which he has written his name, and sticks upon the wayside image, or the little grove beside some country temple with hundreds of tiny paper flags covering the ground, on each of which has been written a name, perhaps of some loved one lost, all speak of souls groping in the dark after some unknown good, and are a silent challenge to Christians who can tell those who put them there what they so need to know. The problems which face the Japanese and their friends are very complex, but one or two facts stand out which, from the Christian point of view, are absolutely certain. (1) It is not a new Gospel, a message accommodated to the prejudices of the non-Christian mind, but it is the same message that once conquered Pagan Britain which alone will save Japan. There are, however, grave dangers arising from the defective way in which the Christian message is often given and taken. A Christ, who is little more than another Buddha, a Christ without the cross or the resurrection, without the promise of eternal life, will never enter deeply into any human heart. A Bible, dissected by however skilful a critic, will never become food for hungry souls. A Missionary of many years wide experience writes that he has "never seen or heard of any individual, or any body of Christians, brought nearer to Christ, and made more earnest or intelligent workers in His Kingdom through the influence of Modern Criticism. On the contrary—it is the consensus of opinion among the most earnest workers that, wherever it comes, it brings blight and paralysis into the Churches. The present condition of weakness and lack of evangelistic zeal and devotion can unquestionably be traced in some large degree to its desolating influences."\*

---

\* *Missionary Joys in Japan*, by Paget Wilkes, p. 318.

(2) It is also certain that the Christianizing of Japan must depend increasingly on her own sons and daughters and therefore that the efforts of the Missionary should be more and more directed to lead up to this object. That there are weak points in the Japanese character none are more willing to admit than the most thoughtful among them. But that many of them possess high qualities of leadership and loyalty, and that they can appeal to the hearts of their own people in a way that no foreigner can, is beyond question. Nothing can develop these qualities so much as the opportunity of responsibility.

For her social problems Japan needs similar methods. If the moral condition of her towns is to be purified; if the standard of her literature is to be raised, if the honour of her business men is to become above suspicion, reforms must be induced by the Christian people of Japan. Non-Christianity can never rise, or raise men, above its own level. Though democratic tendencies have developed in Japan far less than in America or Europe, there are many signs of movement in that direction, and there is therefore the greater need of witnesses to that righteousness, God-given only, which can exalt a nation; and that witness must be given by the consistent lives and the constant teaching of her own people.

English Christians have still a duty to fulfil towards a nation allied to their own by political ties, and they can best discharge it by earnestly endeavouring to encourage and strengthen those with whom they are already in Christian fellowship, to bring their Islands which they proudly call the Land of the Rising Sun, together with their increasing possessions in Formosa and on the main land, into the full light and liberty of the Gospel of Christ.

#### DISCUSSION.

The CHAIRMAN, after moving a very hearty vote of thanks to the Lecturer for his valuable paper, declared the Meeting open for discussion.

Mr. M. L. ROUSE asked the Lecturer whether the sect of Shin, which as he understood, offered the nearest analogy to the Evangelical School, proved more or less open to accept Christianity than did the other sects. The conception of Amida as having lived a life of beneficence on the Earth was doubtless borrowed from early Christian teachers, but that of a single Creator of men, if it existed, would be primeval, if it could be shown that he bore a name

peculiar to Japan. He quoted, on the authority of Mr. Ijima, an old-time tradition that "Izanami no Mikoto came down from heaven, divided heaven from earth, and created everything." He considered that mediaeval Europeans adopted decorated altar tables, rosaries and the like from the Buddhists and other Asiatic pagans, rather than the other way about. He had watched the ritual of the Kalmucks, who derived their Buddhism from Thibet, at their show encampment in Dresden, and in Chinese temples, one image constantly recurs, that of the queen of heaven with her infant in her arms. (N. Wright and H. Allom, *Illustrated China*, I, p. 40, and II, pp. 52 *et passim.*)

Lt.-Col. MACKINLAY said : As an instance of the great and rapid changes that had taken place in Japan, I may mention that 50 years ago, dissection of the human dead body was not practised, as it was thought to be improper. On the other hand, in their recent war with Russia, the Japanese led the way in sound scientific regulations for the sanitation of armies in the field ; their losses from typhoid being far less than ours in the South African campaign.

The Japanese do not now oppose Christianity with bitterness, and they have no very strong attachment to their own religions, but a peculiar difficulty exists. The Japanese, under a guise of very great politeness, practise a reticence which renders it difficult to know their real thoughts. You seem to know a Japanese to whom you may be introduced, almost at once, but in most cases after many years' friendship little advance seems to be made in real knowledge of his character. As an example of a Christian Japanese I may mention a friend of mine, who came to England some years ago, for education at Cambridge as an undergraduate ; he lived at the house of one of the tutors, whose wife read the Bible with the young foreigner every day. He was converted and baptised in Cambridge, some months before his return to Japan. What opportunities there are for reaching non-Christian foreigners with the Gospel, during their stay in England ! During the Russo-Japanese war a Christian Japanese officer, when dying, showed his change of heart by leaving a large bequest to needy Russians, the enemies of his country.

Mr. SCHWARTZ said : Our author suggests that what good there may be in Buddhism had been carried by Nestorians to China. Max Müller and other scholars have pointed out the many similarities

between the two religions, and I think there is no doubt whatever that Buddhist missionaries visited Western Asia, Greece and Egypt, before the Christian Era. The Japanese do not admit their moral inferiority ; they came over to Europe to learn and adopt western methods, and have assimilated our arts and sciences, but our religious, moral and social practices do not appeal to them. Our author alludes to the fanaticism displayed in the persecutions and atrocities inflicted on the first Christian missionaries in Japan. These persecutions were political, for these first missionaries were Jesuits, who fomented revolution and national disintegration. Teyasu realised the danger and put them down with a strong hand. I am sorry to learn that our author has so poor an opinion of the value of broad views, for they alone have any chance of success in heathen countries possessing any culture, except among the moral and intellectual dregs and children.\* Thus Dr. Nitobe says : "I trust my attitude towards Christianity itself will not be questioned. It is with ecclesiastical methods and with the forms that obscure the teaching of Christ that I have little sympathy." At the World's Parliament of Religions, Mr. Kishimite said : "Christianity will ultimately become the religion of the land ; it is so pliable that it can adapt itself to any environment. We do not want Catholic or Protestant, but the Christianity of the Bible, nay of Christ. Indeed the time is coming when God shall be worshipped, not by rites and ceremonies, but in spirit and in truth ! "

Capt. MCNEILE asked if the similarity between the Japanese and mediæval forms of worship may not have arisen from the influence of the Jesuit missions of bygone centuries. About 35 years ago the Church Missionary Society in Hong Kong were debating what Chinese word to take to represent the idea, "the Almighty," there being no equivalent expression in Chinese ; and difficulties arose

---

\* But are such "broad views" Christianity ? Christianity, like Christ, comes to save the lost. He came not to call the righteous, but sinners to repentance, and was accused of being the Friend of publicans and sinners, *i.e.*, of "the moral and intellectual dregs." The people of "culture" said, "Have any of the rulers or of the Pharisees believed on Him ?" But the sinners and the little children came to Him and He received them, and said, "Except ye be converted and become as little children, ye shall not enter into the kingdom of heaven." While the men of "culture,"—the scribes and Pharisees, the chief priests and rulers of the Jews,—rejected Him and crucified Him.—EDITOR.

because there was a Jesuit word for this already existing, which was not acceptable to the C.M.S.

The Rev. MURRAY WALTON said that we had to remember that Buddhism in Japan to-day was a very powerful religion, and indeed the most strongly entrenched foe of Christianity. Of the Buddhist sects, the Shin was the most powerful ; this was largely because of their conception of Amida as a Saviour, in many ways similar to our ideas of Christ, but their teaching as to sin was entirely different ; whereas we look to Christ to save us *from* sin, the Japanese look to Amida to save them *in* sin. Further, Amida never existed—he was pure myth—he had no historical basis. The Shin priests at the present time were carefully trained, and ignorant and immoral priests were certainly the exception. It must be remembered that 80 per cent. of the population of Japan was rural, and was largely unaffected by intercourse with Europe. Buddhism had all the strength of this 80 per cent. behind it. In the towns things were different, and even sadder. Materialism and agnosticism had made great advances amongst the educated classes ; western science was shattering their faith. In the Tokyo University of some 4,600 students a religious census recently was taken, in which 3,000 of them declared themselves agnostics, 1,500 atheists, 60 were Buddhist, 50 Shintoists and 8 Christians.

Gen. HALLIDAY asked the lecturer if he would kindly tell them what Nirvana really meant.

Bishop THORNTON asked if any explanation could be given of the unfavourable opinion amongst business men as to the integrity of the Japanese. He had heard it said in Australia that Japanese men of business were unsatisfactory as regards commercial honour, and presented an unfavourable contrast to the Chinese in this respect. Is honesty insisted upon in the Imperial Rescripts ? Does not love of truth, for its own sake, lie at the base of a good character ?

Rev. T. H. DARLOW said : It was hardly possible to decide how far early Christianity had acted upon Buddhism, and how far Buddhism had modified Christianity. When the Jesuits landed in India, and saw the Buddhist ritual, they concluded that Satan must have been before them to caricature Christianity. One great obstacle to the Gospel in Japan to-day was the hold that Buddhism had on the rural districts. The Japanese use the religious machinery that we use—tracts, Sunday schools, Young Men's and

Young Women's Buddhist Associations—and they build costly new temples. The revolution in Japan during the last sixty years had been extraordinary. Men who fought Russia with magazine rifles, had grandfathers who had fought in chain armour. The *Standard* war correspondent could not discover an illiterate soldier among the Japanese troops, and the standard of popular education was now much higher than in Italy or Portugal. But the war with Russia had burdened Japan with debt, involving crushing taxation. Factories were springing up, but the Japanese had, as yet, no factory laws, and child labour was used ruthlessly. From her intercourse with Europe, Japan had assimilated most things, except the Gospel. Our hope for Japan lay in an indigenous Christian Church, which would not be copied from any western model.

Lt.-Col. M. A. ALVES, R.E., said that he feared there was no reason to expect that Japan would become a Christian nation. There had recently been a great revival in downtrodden Korea, and there was a strong and vigorous Church in China; but the Japanese were too self-satisfied for the nation to accept Christianity.

The CHAIRMAN moved a vote of thanks to the author of the paper and to the speakers in the discussion, which was carried by acclamation. He thought that they were all of opinion that it is "the same message that once conquered pagan Britain that alone will save Japan." In the religions of Japan there is no atonement for sin, and therefore no salvation from it. The forgiveness of sins, and the peace of conscience flowing therefrom, are unknown to them. Unknown to them also are the birth from above, and eternal life, with its aim of holiness, sanctifying thought and desire in harmony with the will of our Father,—God. We have been reminded that though higher Buddhism has a doctrine of a tritheism, it has none of a Trinity; and, while inculcating excellent moral precepts, it does not supply the motive power to carry them out successfully. We, who are Christians, have a great responsibility towards these, our allies, to convey to them the message of infinite love, speaking in the death and resurrection of Jesus Christ; and this Gospel preaching should be especially the work of native Christians, since these are in touch with the minds and hearts of their countrymen. Thus Japan may become, in a sense that she is not now, "the land of the Rising Sun."

The LECTURER thanked the Meeting for the very kind reception

which they had given him. He must admit that his knowledge of Japan was largely second-hand; he had stayed there for four months in 1912, and had then enjoyed exceptional facilities for getting to know the country and people. His daughter had resided there for eighteen years and knew the language thoroughly, but most of his information he had derived from others. In reply to the questions that had been asked him: it was the fact that English business men, whom he had asked, trusted Chinamen rather than Japanese. With regard to education in Japan, he did not know of the New Testament being used as a text-book in any Japanese Government school, and English was not usually taught there. But at Osaka, and in other Church Missionary schools, English was taught, and the knowledge of English is spreading. In most of the shops at Tokyo, English is spoken. The similarity between Buddhist and Roman Catholic rites might possibly have been derived from the Jesuit missions, images and books being preserved in secret from the time of the persecution. He knew that this had happened in some places, but, in view of the fierceness of that persecution, it was not likely that much of the resemblance had been brought about in that way. What Japan needed was the pure Christianity of the Bible, not deteriorated by ecclesiasticism or rationalism. An English bishop had told him that it was quite possible that the whole of Japan might at some time rapidly adopt Christianity. This would come about if a great leader arose, like the religious reformers that Japan had had in the past, who should commend Christianity to them. But, in that case, it would be a national adoption of Christianity, not a personal acceptance of Christ. As to the meaning of Nirvana, that was a very difficult question to answer. The nearest way by which one could express it was to say that Nirvana meant "nothingness." In conclusion, he would say that it took a very long time for the European to learn and understand the Asiatic. They ought, therefore, to take care not to judge the Japanese too hastily and too harshly.

The LECTURER subsequently added the following remarks in reply to Mr. Schwartz:

The writer of the paper is not aware that he made any disparaging remarks on "broad views." If he did so, he much regrets it; for he always avoids the term "broad" in the sense that Mr. Schwartz seems to attach to it; just as much as he also avoids

the terms "high" and "low," as applied to Church views. They are all misleading words. He believes with the Psalmist that the commandment of the Lord is "exceeding broad," and also with the teaching of Jesus Christ that "broad is the way that leadeth to destruction." He has also noticed that many who claim to have special breadth of view unconsciously narrow the scope of their outlook by limitations and prejudices which are, to say the least, unscientific, and therefore the opposite of "broad." On the other hand the true Christian view is really broad.

## 550TH ORDINARY GENERAL MEETING.

HELD IN THE ROOMS OF THE INSTITUTE, ON MONDAY,  
FEBRUARY 2ND, 1914, AT 4.30 P.M.

DR. J. W. THIRLTE, M.R.A.S., TOOK THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed. The CHAIRMAN introduced the Rev. H. J. R. Marston, and said that Mr. Marston would not read his paper, but would give them a general synopsis of it. The paper, as printed and submitted to the Meeting, is as follows :—

---

*THE CHRISTIAN DOCTRINE OF ATONEMENT.* By  
THE REV. H. J. R. MARSTON, M.A., Late Fellow of the  
University of Durham.

Some prefatory observations are desirable in order to explain and justify the form and tenor of the following Lecture.

I.—The material here presented to the Members of the Institute is part of a book on the subject which is in course of production by the Lecturer. The consequence is that the composition, considered as a literary effort, may appear loose in connection ; and may perhaps contain some unavoidable repetition. If this be so, I beg the Members of the Institute to understand and to pardon; assuring them that there has been neither haste nor carelessness in the preparation of the paper. On the contrary, the matter of the lecture has been long and industriously pondered and carefully put together.

I venture to invite special regard to the title of my subject as it stands at the head of the paper.

I have not endeavoured to formulate a theory of “The Atonement.”

I incline to believe that Atonement is prior to Christianity ; and wider than the Bible. It would seem to be inherent in the beliefs and feelings of the human race. It is certainly far older

than Leviticus ; which is probably a regulative code, not an inaugurating charter. Throughout that wonderful book, so it seems to me, "the instinct for Atonement" is taken for granted.

I further incline to believe that the New Testament takes that same instinct for granted too. The death of the Lord Jesus and the teaching of his Apostles fixed and illuminated for all time what was the meaning, the value, and the limits of that instinct. Hence it seems to be correct to speak of "The Christian doctrine of Atonement"; rather than to treat of "The Atonement" as if it were a new and isolated fact in human history.

Some misgiving has been expressed as to whether the subject of Atonement is not too theological to come properly within the ken of a Philosophical Society. That misgiving may be allayed by two considerations. The first is that the very nature of our Society compels it to attend to the outstanding aspects of the Christian Faith; and to explain and to defend them. This is what we are for. Among these the Atonement is so important that we cannot possibly pass it by. To attempt to justify it to the modern conscience is a noble and very useful task.

The second is that the method which I have followed in this lecture invites discussion from Historical and Ethical students. Recent Travel, Comparative Religion, and Moral analysis of Human Nature are all to be heard on the subject with attention and hopefulness. Light from many quarters is welcomed, so long as it be light.

II.—The method which I have followed in this lecture is, I think, unusual. Most writers on the Atonement have dealt with the subject from what may be called the internal point of view. They have considered it either with reference to the attributes of God, or the intuitions of men. They have declared that such and such views are required because God is just ; or because He is merciful ; or because man cannot believe that God would make such and such demands. From the time of Anselm to the time of McLeod Campbell, this way of treating the subject has been prominent.

It must be allowed that a method which has commended itself to many good and gifted men, has much to be said for it. And I cannot expect that those who hear or read this lecture with minds accustomed to follow the lead of Anselm and Campbell, of Maurice and the elder Magee, will readily approve the method adopted by me. They are certain to

think it narrow and jejune ; and they may also think that it borders upon the splitting of verbal hairs, or upon grammatical pedantry.

I would remind such objectors that the fundamental principle of the Reformation was this, that exegesis is the key to theology. By this maxim it reversed the proceedings of the Middle Ages, which were formed upon the principle that theology is the key to exegesis. I cannot see why this principle, which has been fruitful in spiritual results of the first importance, should not be applied to the study of the Atonement. To my own feeling Systematic Theology from Calvin to Ritschl has been blighted and deformed by the tendency to separate itself from the results of exact New Testament scholarship.

This address, at all events, if it has erred, has not erred in that direction. I have rigorously endeavoured to follow the teaching of the New Testament ; I have never even cared to ask whether the results arrived at can be made to harmonise either with what are supposed to be the Divine attributes, or with those alleged intuitions of men which some people so studiously endeavour to conciliate.

For me the New Testament ought to have the first and the last word in this, as in all religious enquiry ; and that because of its unique and specific possession of the *charisma* of Inspiration. I do not for a moment question that a subject so wonderful and comprehensive as the Christian doctrine of Atonement may be lawfully treated by more methods than one. I hail with thankfulness the revived interest in this central article of Christian believing and Christian doing : It is a sign of reviving Christian life itself. Life is manifold ; and every living enquiry must be conducted in manifold ways. But I venture to think that the method followed in this paper is among the first in importance, and likely to lead to clear and far-reaching thought upon the subject.

In this spirit and under these convictions, these thoughts are offered as a contribution towards a clearer view of the work of Our Lord in the putting away of sin. It is committed to the blessing of God, and commended to the favourable perusal of Christian people, in a time of many transitions, and of much searching of heart ; yet a time when the hearts of multitudes are reaching out after a fuller and surer knowledge of truth as it is in Jesus.

There are two remarks which I ask leave to add to these introductory observations. The first is this, namely, that I believe in the stability of the laws of language, and especially

of the Greek language. I hold strongly that the Greek of the New Testament is Greek ; not a patois, nor a jargon. What has been called “grammarless Greek,” if it ever existed anywhere, is certainly not the Greek of St. Luke and St. Paul, of St. Matthew and St. James, of St. Peter and St. John. The Apocalypse is, of course, the book in the New Testament the Greek of which most frequently defies the laws of grammar. The sidelights thrown upon it by recent researches into the Greek of the papyri, are often interesting and sometimes suggestive. I would welcome all such light ; but I still believe that St. John in his latest years made no deliberate attempt to use language in defiance of the laws of speech and thought. With this exception, however, the books of the New Testament should be studied with the grammar in our hand ; and under the belief that the sacred writers used the words which they did use so as to be understood by all sorts of readers who had learned their language as we learn ours.

The second remark that I would make is this :—When appeal is made to the conscience or reason of man to settle whether the Christian doctrine of Atonement is true or not true, to what conscience and to what reason of what man is that appeal made ? If Rousseau declared the doctrine to be false because it contradicted his moral sense, I rejoин, what does that signify ? Of what value to anybody was Rousseau’s moral sense, seeing it was of no value to himself ? If his great contemporary, Bishop Butler, should declare that the doctrine repugnant to the moral sense of Rousseau was agreeable to the moral sense of men in general, who would hesitate to follow the bishop, and disregard the sentimental savage from Geneva ? And this is but a sample of the difficulties in which we are landed when we follow the method usually followed in enquiring about the Atonement. It is certain that so far as history can teach us, a sense of the need for propitiating God is found everywhere. This is a strong proof that such propitiation is actually possible ; since “ nature does nothing in vain.” And this pathetic and venerable sentiment is of far more consequence than the objection to it raised by any particular thinker ; that objection might be very strong if it were very general ; but otherwise it seems to me of little account.

Let anyone, however, consult the writings of those who have treated the Atonement on abstract principles ; and they will find that these writers differ widely between themselves ; and indeed that they agree in little else than in the habit of raising objections to some or other part of the Christian doctrine.

### III. NEW TESTAMENT VIEWS OF SIN.

The sacred writers view sin as bondage, as enmity, as defilement, or as hampering limitation. They assume everywhere that men are conscious of being guilty, miserable, impotent. We may safely affirm that this assumption is sustained by an experience so vast and varied as to be practically universal. When St. Paul wrote, "O wretched man that I am," he wrote as the prolocutor of the human race.

In this light the Christian doctrine is only the highest confession of the need for Atonement; but if the Gospel be the universal religion, it must offer some doctrine of Atonement; and if it also be the Divine religion, it must also offer the best doctrine of Atonement; and accordingly the New Testament announces that God is the author of a fourfold process. He is the Redeemer, the Reconciler, the Consecrator, the Releaser.

The New Testament, moreover, intimates that in thus proceeding God acted harmoniously with His essential character. "God was in Christ reconciling the world to Himself."

"God set forth Jesus Christ to be a propitiation in His blood through faith."

"When we were enemies it was to God that we were reconciled by His Son's death."

"The Father sent the Son to be a propitiation for our sins."

"It was the God of Peace Who brought again from the dead the Lord even Jesus."

"It is God Who commands His Love in that while we were yet sinners Christ died for us."

So confident is the New Testament of the truth that redemption had its origin in the love and will of God that St. Peter declares that Christianity was sent into the world in order that men's faith and hope might be in God.

The awful and abrupt impact of God upon the sinful world is that which imparts to the Christian doctrine of Atonement its signal and disquieting grandeur. Against it, therefore, rise all lawless sentimentalities; all vicious levities; all insolent sophistries; all despairing incredulities. The insurrection is sometimes exasperated and inflamed by the indiscretion of Christian preachers; but it is provoked by the doctrine itself.

In attempting therefore to sum up apostolic teaching on Atonement, while I would avoid everything that may justly give offence, I cannot hope, nor do I wish, to escape from that

measure of hostility which is inevitable; and which even St. Paul lamented when he wrote to the Philippians about the enmity towards the Cross of Christ.

For the New Testament accuses man of guilt, misery, and impotence; and charges him with being responsible to some very real degree for each of these three calamities. It announces also a provision made by God which corresponds with these calamities. It declares that in Jesus Christ God's love has entered into the world of time and history on what may be called a campaign of redemption. This love is just and pure; and in fulfilling this pure and holy purpose the Son of God became incarnate that He might reconcile and release in reality as well as in truth. The Incarnate Son incurred the total liability of the race which He came to redeem; even the sacred wrath against sin which is essential to the Godhead was to the full vicariously felt by Him. So completely was this the case that nothing now remains over to be demanded by eternal perfection.

Since in the intention and knowledge of the representative Christ, Man corresponded with all those demands, a true satisfaction for sin has actually been made.

Thus a mutual reconciliation of God with the world was brought to pass by God Himself: and love in equity invites all men to become reconciled with God. As, believably, we remember the speaking of the blood of sprinkling, whose voice of endless power allures all souls, peace with God obtains an inward ascendancy, which is accompanied by a penitent recoil from that which cost the shedding of the Redeemer's blood. Thus is effected an actual release from the habits and even from the impulses of sin. The Atonement becomes an ethical force; its influence begins to tell directly upon the springs of life and character.

#### IV.—THE DOCTRINE OF THE BLOOD OF JESUS.

The New Testament is penetrated by the teaching that an intimate connection subsists between the Blood of Jesus and the putting away of sins. The doctrine is supported by each of the four Gospels; by the Acts of the Apostles, by the language of St. Paul, by St. John in his first epistle and in the Apocalypse; and by St. Peter in his epistle addressed to the churches of the dispersion.

The apostle to the circumcision and the apostle to the Gentiles equally proclaim this intimate connection. The church

of the Hebrews and the church of Rome, as also the churches in Asia were all taught that a profound and inviolable association linked the forgiveness of their sins with the shedding of the blood of Jesus.

From the middle of the ministry of Our Lord to the closing decade of the first Christian century this doctrine was decisively and abundantly attested.

The fact is so conspicuous and so impressive that it cannot be passed by with a cursory notice. It demands to be weighed and measured. For it proves that there dwelt in the apostolic mind the conviction unbroken and diverse that

“Without shedding of blood there is no remission.”

Apart from any belief in divine inspiration this concurrent testimony is remarkable enough. Viewed in the light of any real and reasoned belief in that inspiration, the testimony is significant to the highest possible degree.

The teaching of the apostles about the blood of Jesus was much more than a survival in them of Hebrew habits of mind formed under the influences of the ancient Law. For it is announced in its most trenchant formula in the epistle to the Hebrews ; an epistle which more than any other writing in the New Testament discredits the sacrificial apparatus of the Old Testament when placed in comparison with the sacrifice of Christ.

The doctrine, moreover, is too defined and emphatic to be explained by that mysterious sentiment, seemingly coeval with our race, that bloodshed is the medium most proper for communication between God and His offending offspring ; the sentiment so pathetically treated by Schiller in the “Eleusische fest.”

In fact this doctrine is specific to Christianity ; it is integral to the New Testament, and is distinctive of it. Shadowed forth by the Levitical ritual ; attested by the indigenous religions of the world, sometimes in gross, sometimes in ferocious, always in tragic imitations, the “doctrine of the precious blood of Christ” (I Peter 1.) was proclaimed by His apostles with an energy and an unanimity, which prove that it was practically original. The eternal value of this was declared by them with all the more intensity, because they all denied that

“the blood of bulls and of goats had any power to take away sins.”—(Hebrews x.)

The true origin of the doctrine is to be found in three events in the life of Our Lord. The first was His teaching in

the synagogue at Capernaum preserved in the sixth chapter of St. John. The second was the institution of the Eucharist. The third was the effusion of blood and water from His sacred side after His death upon the Cross.

Thus the doctrine of the blood of Jesus took its rise in the teaching and the facts of Our Lord's life itself; and possessed from the outset a spiritual, a sacramental, and an historical importance.

The Lord Himself connected His blood with the saving and the nourishing of souls. It was none other than He who associated the Lord's Supper in one of its two elements with the efficacy of His own blood. His favourite disciple mentioned the shedding of His blood as one of the proofs of His Lord's perfect humanity.

To-day the detractors of this glorious article are a negligible fraction, and if the Church is strong to-day in her conflict with sin and misery, a preponderant measure of that strength is due to the degree of faithfulness with which the doctrine of the precious blood of Christ has been maintained.

Offence has sometimes been taken, and I think justly taken, at the language of popular preachers when speaking on this topic. I have no wish to excuse their aberrations, nor to minimise the mischief which sensuous extravagances have done.

Such preachers are bound to imitate the language of the New Testament, in its decorum, its simplicity, its grave restraint. Sermons, hymns, and tracts ought never to transgress against these inspired qualities. A theme so immeasurably sacred, and so perilously sweet, should be treated only as the sacred writers treat it.

To talk about "the blood" is contrary to the manner and the spirit of the New Testament. The term occurs once only in the New Testament\*; and strictly considered, not even once.

The invariable use of the sacred writers is to define the blood by some explanatory word. "The blood of Christ," "the blood of Jesus," "His blood," "the blood of sprinkling," "the blood of the everlasting covenant," "Thy blood," "His blood."

While we may never relax the stress with which we maintain with the whole New Testament that between the blood of Jesus and the forgiveness of sins there is an association that cannot be dissolved, we must always assert that association, as the New Testament asserts it, with a divine sobriety and beautiful good taste.

\* See St. John, 1st Epistle, Chap. V.

## DISCUSSION.

In a spoken address of great eloquence, Mr. MARSTON introduced some details which were not included in the printed paper, and at the request of the CHAIRMAN, in which the meeting heartily joined, Mr. MARSTON added later the following section :—

I have thus stated the Christian Doctrine of Atonement in a light which seems to make that doctrine appear to be incomparable, indispensable, and completely moral. It remains for me to notice four objections alleged against all theories of Atonement ; and therefore, of course, against the Christian doctrine.

The first objection is that alleged by some students of Comparative Religion. The second is alleged by those who maintain that repentance is sufficient to secure the complacency of God towards the sinner. The third is alleged by those who say that the Doctrine of Atonement offends the Moral Sense. The fourth is alleged by some disciples of Evolution, who say that there is no such thing in reality as a sense of sin, and therefore there is no such thing in reality as the need of atonement.

The Comparative Religionist pronounces the Doctrine of Atonement to be mythical ; the advocate of Repentance pronounces it to be superfluous ; the stickler for the Moral Sense pronounces it to be immoral ; the votary of Evolution pronounces it to be obsolete. I will briefly reply to each objector.

1. The objection alleged from Comparative Religion I meet in this way. There are no doubt many tokens and guesses at Atonement scattered throughout history, human sacrifices, scapegoats, banquets of flesh and blood, and many grotesque and horrible ceremonies can be collected in illustration of Atonement, but at best, these are rude adumbrations of the Cross of Christ. Even the Old Testament sacrifices are called by the Apostle to the Hebrews a mere shadow of the things to come. But between the Cross of Christ in its definite historical power, and its moral majesty, and the quaint or painful examples of Atonement put forth by Comparative Religion, there is so deep and wide a gulf that any true comparison is out of place ; at least it must be allowed that all such comparisons prove Christianity to be the superlative religion.

2. The objector who says that Repentance is sufficient to secure forgiveness may be answered thus. Is there anything

in the nature of repentance, to compel forgiveness? If God requires repentance, which is in itself a process full of deep and acute inward pain, why may He not also require a real sacrifice, a bearing of penalty, before He can effectually forgive. In this light, atonement becomes the crown of repentance.

3. The objector who says that the Doctrine of Atonement is immoral, I have already referred to; but I would here submit to him the following questions. Why is it immoral in God to be displeased with Sin? Why is it immoral in God to forgive Sin? Why is it immoral in God to make the most generous terms with the Sinner? Why is it immoral in God to accept the loving and willing self-sacrifice of His Son in order to accomplish whatever may be necessary to complete the mystery of redemption?

4. To the objector from the side of Evolution, I would reply with all deference due from one, who knows very little about biology, as follows: The sense of sin seems to be inextricably intertwined in human nature; it is certainly not confined to the brutal or degraded; for example, it permeates the Attic Drama, which must be taken as the highest expression of human thought and feeling, outside Revelation. By the sense of sin, I do not mean a sense of conflict, successful or unsuccessful, with lower appetites or lower forms of life; it is something quite different from the scars of humanity in its victorious ascent. It is properly expressed by the royal penitent in the words, "Against Thee only have I sinned"; "Lo, Thou requirest truth in the inward parts."

It is again expressed by the Apostle Paul, in the words "The good, that I would, I do not," "the evil, that I would not, that I do." This sense of sin is, I maintain, chronic; and can only be eradicated by a believing enjoyment of the Christian Doctrine of Atonement.

The CHAIRMAN in conveying to the lecturer the thanks of the Meeting, said it was a happy idea on Mr. Marston's part to lay aside his printed paper and to give the Meeting an exposition of his subject in the lucid and eloquent speech to which they had listened with so much pleasure.

Mr. M. L. ROUSE thought that an inherent idea in sacrifice was the purity of the victim; hence, in a passage quoted from Virgil by Mr. Marston, it was a virgin that had been slain to appease the wrath of the gods. Where did the heathen get the idea of propitiatory sacrifice through the offering of the life of an innocent

animal? Would it have occurred to them naturally that the Creator would be pleased with their burning to Him, in part or in whole, one of the creatures that He had made? Must they not have learnt it by tradition from our common ancestor, Noah? It should be remembered that in the Babylonian account of the Flood, as in the account in the Bible, stress was laid on the offering up of sacrifice as soon as the Flood was over. Probably Noah had received the tradition from Adam who had been taught of God in this matter.

Rev. E. SEELEY said: I do not rise to criticise as I agree with nearly all that Mr. Marston has now set before us whether by printed or spoken word.

"Christ died for our sins"; a "Propitiation for our sins . . . for the whole world."

"God . . . gave His only begotten Son that whosoever believeth in Him should not perish, but have everlasting life."

"The Blood of Jesus Christ His Son cleanseth us from all sin."

These scripture truths I fully accept. But, "the Christian Doctrine of Atonement" includes more, and the fuller revelation makes the Gospel more intelligible:—more evidently "the wisdom of God." 1 Cor. i, 23, 24.

Let Scripture be our sole basis, and let us start with the first revelation of God's Gospel. Gen. iii, 15, "It shall bruise thy head, and thou shalt bruise his heel." This implies victory through suffering, a victory of conquest of the Evil one, and of deliverance of the enslaved. The New Testament tells us in clearer language of the Saviour "becoming obedient even unto death, yea, the death of the Cross." "Wherefore also God highly exalted Him, etc." (Phil. ii, 8, 9). Christ came as the God-given Lamb of Sacrifice. But the typical sacrifices were NOT CRUCIFIED. Why was Christ crucified? With the last quoted text compare Rom. v, 18, 19 "As through one trespass the judgment came unto all men to condemnation; even so through one act of righteousness the free gift came unto all men to justification of life. For as through the one man's disobedience the many were made sinners, even so through the obedience of the One shall the many be made righteous."

That "one act of righteousness" was the "obedience even unto death, yea, the death of the Cross." The perfect victory over extremest temptation was "well-pleasing" to God and effected

Atonement, and the Reconciliation included Redemption ; as stated in Heb. ix, 12 “ by His own blood He entered in once into the holy place, having obtained eternal redemption.”

The absolute perfection of Christ’s sacrifice of Himself in entire devotion to God through life and death was the “one act of righteousness” that “much more” than atoned for the former “one trespass” and also for our abounding sins, and therefore “where sin abounded, grace did abound more exceedingly ; that as sin reigned in death, even so might grace reign through righteousness unto eternal life through Jesus Christ our Lord ” (*see Rom. v, 17-21.*)

So we see that Christ’s tremendous victory was also the Atoning Act that pleased God, and it procured for the Reconciler the throne of grace and glory, and also the New Covenant of grace for mankind ; and by that Covenant He assures grace and glory to all who accept His salvation, and trust in Him.

The Rev. JOHN TUCKWELL said that we could not add to that which God had Himself told us about the Atonement. He did not see that there was any force in the objection that had sometimes been made to the use of what had been spoken of as the “commercial terms” in which the Doctrine of Atonement had been expressed. The Scriptures themselves spoke of “buying the truth,” and similar terms were in ordinary usage amongst ourselves ; thus we would say of a man who had ruined his health by overstudy that “he paid a heavy price for his knowledge,” but here there was no question of anyone receiving that price. There was one view of the question which should not be overlooked. God was not only our Heavenly Father, full of mercy and love ; He was also the Moral Governor of the universe, who could not look upon sin with the least degree of allowance. Light thoughts of Atonement generally went with a light estimation of sin. We can form no ideas of our own as to how it was possible for a just God to receive sinners back into favour ; He Himself must tell us ; the plan must be His entirely ; and His plan was seen in the sacrifice of the Incarnate Son of God.

Mr. J. SCHWARTZ, Junr., read quotations from the writings of Sir Arthur Conan Doyle, Mr. W. H. Mallock, Dr. E. B. Tylor, the Rev. George Henslow, and Sir Oliver Lodge to show that these writers were not in accord with Mr. Marston on the

question of Atonement, and he held that the doctrine of the "Blood" did not appeal to the majority of the educated laity of the XXth century.

The Rev. A. COCHRANE said : If it be true as the last speaker said in his quotation from Sir A. Conan Doyle, that the rising generation has largely outgrown the Doctrine of the Atonement, he could only say that he was very sorry for the rising generation. As for Sir Oliver Lodge, and others like him, the language they used only revealed their great ignorance of the real teaching of the Bible. The questions that lie behind the statement, "the Incarnate Son incurred the entire liability of the race that He came to redeem" (p. 48), are "Why did the Son take upon Himself the liability of the race," and "How could He do it" ? The Apostle St. Paul in Col. i, speaks of Him not only as "the First-born from the dead," but also as "the First-born of all creation." In verse 16, we read in the Authorized Version "by Him all things were created," but in the Greek and in the Revised Version, it is "in Him." This passage in the Epistle deals with a wider subject than the reconciliation of the human race alone. It speaks of the reconciliation of all creation. The Son was the original Head of all things, and before the fall of man, He formed a real link between God and the human race. After the fall, He followed that race, to which He was so closely linked, into its fallen condition, so that He might redeem it, and bring it back to God. It was as the original Head of man that Christ incurred and took upon Himself the burden of man's sin. The great questions were not so much that of Atonement, as "Who made the Atonement ?" and "What is His relationship to the human race ?"

The Rev. F. B. JOHNSTON said that Mr. Schwartz had quoted from a number of writers, and claimed that the majority of educated men at the present time was on his side. Truth has always been held by the minority of men ; the carnal mind kicks at the Doctrine of the Atonement.

The Rev. F. CECIL LOVELY, rose to protest against the attitude Mr. Schwartz habitually took in putting forth views that were diametrically opposed to the constitutions of the Victoria Institute. Mr. Schwartz did not appear to have any desire to investigate Philosophical and Scientific questions of truth ; but only to assert opinions, which were often offensive to those whose belief was

"based upon faith in the existence of one Eternal God, who, in His wisdom created all things very good."

Prof. LANGHORNE ORCHARD thought there could be no question as to the truth that "a profound and inviolable association linked the forgiveness of their sins with the shedding of the blood of Jesus" (p. 49).

The value of the Paper—good as it is—would, however, have been enhanced had the author carefully explained the meaning of "sin" and the meaning of "The Blood of Christ." St. John tells us that "sin is lawlessness." It is insubjectivity of will to the law of God. The proper penalty of sin is forfeiture of life, as stated in the declarations—"The soul that sinneth it shall die," "The wages of sin is death," "Sin, when it is finished, bringeth forth death." By his sin, man has forfeited his life. The penalty must be met, either by the sinner himself, or, if he is to be saved, by another—on his behalf. Thus, salvation involves the vicarious principle, and is impossible otherwise. . . . "The Blood of Christ" is His *life poured out* upon the Cross, that we might live (*cf.* Lev. xvii, 11, 14, and St. John x, 10).

The CHAIRMAN in closing the meeting said that he thought the Institute owed a debt of gratitude to Mr. Schwartz for he showed the "leanness of the land" possessed by merely negative teaching.

Mr. Marston had already left, but the meeting indicated very plainly its gratitude for the impressive address he had delivered on a subject of profound importance.

#### SUBSEQUENT COMMUNICATIONS.

Sir ROBERT ANDERSON: To gain clear thoughts on this subject we do well to define the word "Atonement." As Archbishop Trench tells us in his *Synonyms*, "When our translation (of the Bible) was made it signified, as innumerable examples prove, reconciliation, or the making up of a foregoing enmity; all its uses in our early literature justifying the etymology, now sometimes called in question, that 'atonement' is at-one-ment."

No one, indeed, who will study the passages in which the Hebrew word occurs which our translators usually render "to make atonement" can fail to see that under the divine law the at-one-ment was not the sacrifice itself, but a result of sacrifice, depending on the

work of priesthood. And in keeping with this, *iλάσκομαι* is used in Heb. ii, 17, with reference to the Lord's present and continuing work for His people, as High Priest.

Now, however, the word has come to be accepted as equivalent to "propitiatory sacrifice." And in this sense, not only is atonement, as Mr. Marston says, older than Christianity, it is older than Judaism. For Abel offered a propitiatory sacrifice. And the record gives proof that he did so in pursuance of a preceding revelation; for it was not by higher intelligence, but *by faith* that he offered a more acceptable sacrifice than Cain. The universality of sacrifice (and it is found among all the savage races of the world) can only be accounted for by a tradition based on a primeval revelation. For no rational being could evolve from his own brain the idea that by killing a fellow creature he would appease God. Its universality, moreover, gives proof that human nature instinctively responds to the Divine demand for a propitiatory sacrifice. And the infidel must account for this before we can give a hearing to his attacks on the Scriptural truth of the Atonement.

The Rev. Chancellor LIAS: The Christian Creed is a collection, not of dogmas, but of *facts*. It does not, in the first instance, that is, consist of propositions drawn up on paper and accepted by the mind (though these may result from it), but of fundamental facts believed by the heart, and realized by the conscience. The controversies which for centuries have desolated Christianity have not been on the facts of the Divine Order, presented in the Creed, but on the *explanations* of those facts which various schools of theology have given of such questions, as the Presence in the Eucharist; the fact of Inspiration; the necessity of an Episcopal government of local churches. So on the question of Atonement, explanations have found acceptance which had the merit of simplicity, rather than that of duly estimating all the various conditions of a very complex problem. The great Father Origen has been credited with the theory that the price of our redemption was paid to the Devil; it is a matter of fact that he did deliver himself of such an *obiter dictum*, as of many other like suggestions. But his reasoned conclusion was that the mode of Christ's Atonement involved a host of considerations, some lying on the very surface, but some of immense complexity and difficulty. There can be no harm whatever in endeavouring to find reasonable explanations of a

Divine Mystery. But there has been, and unfortunately there is still, a tendency to represent human explanations of Divine facts as the only ones possible, and to insist on the whole Christian Church accepting them as a condition of salvation.

The Rev. Dr. IRVING: The mention of McLeod Campbell might have suggested the desirability of a short critical analysis of his book, *The Nature of the Atonement*. No one work has perhaps done more, if so much, in the last half-century to lift the minds of students of theology above the low, carnal, and materialistic notions of "sacrifice" found in pagan cults, and even in the Hebrew religion in its decadence.

The New Testament certainly lifts the idea to that higher plane of thought everywhere, as the author contends. With St. Paul, "Christ crucified" is "the wisdom of God in a mystery," to be experimentally unfolded in the sacramental life of the Church. St. Peter tells us that "Christ suffered once for sins, the just for the unjust, that he might bring us to God"; and this is in harmony with the Pauline idea of "reconciliation." With St. John the contextual setting of the "propitiation" lifts it altogether above the mere carnal elements of "sacrifice" to a revelation of the love of God, calling to a life of Sonship; and with the author of the *Epistle to the Hebrews*, chap. x (Ep. for Good Friday), it is essentially the perfect surrender of a perfect will; a perfect response to the mind of God towards sin, revealing to man, at the same time, his own dire spiritual needs, while it awakens resentment in the carnal mind of the unregenerate man (*cf. p. 47*).

As the freedom from condemnation enables the spirit of the believer to "walk after the spirit," according to the law of the spirit of the life "in Christ Jesus"; as "the blood of Christ purges the conscience from dead works," (ix, 14) and sets free all the powers of the soul "to serve the living God," it is seen (in the light of Christian experience) that "A moral and spiritual atonement stands in direct relation to a moral and spiritual salvation, Christ giving Himself for our sins to our having in Him the life of Sonship."

Mr. WM. WOODS SMYTH: Apart from modern science we have no rational interpretation of the Atonement. Mr. Marston confesses that he offers no theory of the Atonement. In this he is supported by the following high authorites. The Hon. and Rev. Arthur Lyttelton in *Lux Mundi* says: "The central mystery of the Cross

. . . . remains a mystery and must always be an insuperable difficulty to those who depend on reason." The Bishop of Oxford (Dr. Gore) takes a similar position. The late Professor James Orr puts the question very clearly : "The difficulty does not lie in the innocent suffering for the guilty ; this is common. And the world is full of substitutionary, of vicarious, of voluntary suffering endured for the sake of others." But, he continues, "suffering for another's sins has of itself no expiatory character. It is an *aggravation* of the sin, not an atonement for it . . . If going further we press the question of *how* Christ in this way bore our sins,—what made His endurance of suffering and death an atonement for sin—we have to confess ourselves in the presence of a mystery on which only partial light is available." Now to darken with mystery a central truth for man's salvation is for our race a terrible calamity.

Turn now to the full light of modern science, in which we are instructed that man was created by a great ministry of Natural Law in which animal sacrifice was the predominant factor. "Sacrifice" is the word used by Herbert Spencer in this connection. And in a brief sentence he unconsciously overturns all opposition to the Atonement when he says : "The benefit accruing to the race from these sacrifices is the sanction for the sacrifice."

Now in the light of modern science the fall of man takes on dimensions far beyond anything hitherto thought of ; because he fell from the awful eminence it took millions of years to reach. But, inasmuch, as he climbed to this high eminence through a stupendous ministry of animal sacrifice it is manifestly most rational that he should be restored again by a great ministry of sacrifice ; first in type in the ceremonial Law, and then in reality in the Cross of Christ.

Lt.-Col. M. A. ALVES, R.E. : If we stick to Scripture, and jettison tradition, we shall see that man by nature has a spirit of life the same in substance, if we may use this word, as that of lower animate creation. We shall see also that destruction, not everlasting conscious existence, is the lot of this "soul," as it is sometimes called.

The Christian Doctrine of the Atonement appears to be fully revealed for the first time in St. John's Gospel, where a glorious and endless future life is promised to true believers as an assured present certainty—the doctrine of the Resurrection, in fact. The burnt-

offering seems to foreshadow this, the skin of any man's burnt-offering becoming the priest's who offered it; compare Gen. iii, 21, and Lev. vii, 8. This is the best denied doctrine of Christendom.

So much for general remarks.

That (*see* page 43, clause 4) "the Atonement is prior to Christianity and wider than the Bible" is, I think, unquestionable.

There are allusions in the book of Genesis to sacrifices and other ordinances; and the descendants of Noah must have carried away with them traditions which they either lost by neglect or corrupted; for I do not think that natural human ingenuity would ever have discovered the doctrine of vicarious sacrifice.

The reader (*see* page 45, clause 1), rightly says that "exegesis is the key to theology"; but (*see* page 45, clause 3) when he says "the New Testament ought to have the first and the last word in this, as in all religious enquiry, etc.," I must demur.

Old and New Testaments have one author, God the Holy Spirit; and, until we have studied the Old, we cannot properly understand the New. Further, the Old Testament was our Lord's and the Apostles' only Bible; its grammatical and idiomatic construction are more in accordance with man's linguistic instincts than those of Greek, and many of its idiomatic forms are, to coin a word, "transverbated" into the New Testament Greek. Learned expositors, ignoring this last fact, have been led into writing hopeless jargon.

In connection with this (*see* page 45, last line) is a reference to "the stability of the laws of language, and especially of the Greek language." What are these laws? The Greek, and all other languages but one, began at Babel, the seat of confusion, and different languages have different laws. Chinese and Greek are antipodean to each other in construction.

In the same paragraph (on page 46) it is suggested that "the books of the New Testament should be studied with the grammar in our hand." I suggest that for the words "the grammar" should be substituted "a phrase-book of Hebrew idioms," which are, I believe, much nearer the instincts of human expression of thought than the elaborate and interminable inflections of Greek.

I cannot go with the writer when he says (*see* page 48, clause 4) "thus is effected an actual release from the habits and even from the impulses of sin." It is important for a Christian to know what

the New Begetting is, and what it is not. That the Gospel gives a desire and a power to fight habits and restrain impulses is true ; but many devout Christians have found long established evil habits very hard indeed to cast off. This teaching seems to me to tend towards “sinless perfection.” The Apostle Paul does not seem to have been freed from the impulses of sin ; nor Peter, when Paul withstood him to the face at Antioch. Such teaching would tend, in my judgment, to cause arrogance in the strong, and undue depression in the weak.

The key to the Atonement, or rather to its need, seems to me to be found in Jeremiah xviii, *re* the potter’s house ; first creation a failure, the heavens included ; the second a success. For us men, a new and Divine Spirit of Life to take, in the Resurrection, the place of the old spirit of life (dropped at death) ; a spirit which, though a separate creation, we hold in common with the lower animate—and perhaps inanimate—creation. For evidence of this, see in a Concordance the various uses of the words ‘*N-shāmāh*’ and ‘*Rūach*’ in the Old Testament. This seems to me to be Bible teaching for Christians.

I close with repeating my thanks to Mr. Marston with whom I doubtless agree much more than I disagree.

Mr. Edward J. G. TITTERINGTON, M.A. : Mr. Marston remarks (page 50) that a preponderant measure of the strength of the Church must be ascribed to the faithfulness with which the doctrine of the precious blood of Christ has been maintained. It would have been interesting if we could have heard a testimony from some present, whether, in their wide experience, as well as in history, Christian work is not fruitful, and honoured of God, largely in proportion as the doctrine is faithfully proclaimed. This, in fact, is the true answer to one speaker, who asked whether, if it were presented to us for the first time when we had arrived at years of maturity, we should not have rejected it as preposterous. “For the preaching of the Cross is to them that are perishing (Grk.) foolishness ; but unto us which are being saved it is the power of God.”

One was glad to hear the emphasis placed during the discussion upon what may be termed the wider aspects of the reconciliation effected in Christ Jesus—both as regards His own glory, and as regards the creation as a whole. These are aspects which receive comparatively little attention, but are none the less of first

importance. In addition to Col. i, may one be permitted to refer to Rom. viii, 18-23, and to numerous passages in Eph., Rev., etc.; even, one might say, to Gen. i?

Are we not, in fact, tempted often to ignore even what Calvary means to ourselves? Every good gift of God is on account of that. "Thou hast ascended on high, Thou hast led captivity captive: Thou hast received gifts for men; yea, for the rebellious also." Even the fact that we can approach God in prayer and communion springs from this: we have "boldness to enter into the holiest by the blood of Jesus, by a new and living way, which He hath consecrated for us, through the veil, that is to say, His flesh."

One speaker dealt very clearly with the distinction between the Christian Doctrine of Atonement and the idea underlying heathen sacrifice. Can we not sum up the distinction by saying that heathen sacrifice is based on the assumption that we are able to offer God something which is pleasing unto Him; Christian sacrifice (by which I mean the sacrifice of Calvary, together with all ritual sacrifice prefiguring this, from the time of Abel onwards) is based on the recognition that this is not so. The one springs from that central doctrine of heathenism, salvation by works, or merit; the other embodies the doctrine of salvation by faith in the finished work of Christ, and by that alone.

## 551ST ORDINARY GENERAL MEETING,

HELD IN THE ROOMS OF THE INSTITUTE ON MONDAY,  
FEBRUARY 16TH, 1914, AT 4.30 P.M.

MR. WILLIAM J. HORNER TOOK THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

The SECRETARY announced that Mr. H. C. Hogan had been elected as a Member, and Mr. Swinfen Bramley-Moore and Mr. A. Montague Newbegin had been elected as Associates.

The CHAIRMAN then called upon the Rev. J. J. Lias, M.A., Chancellor of Llandaff Cathedral, to read his paper.

---

*IS THE SO-CALLED "PRIESTLY CODE" OF POST-EXILIC DATE?* By the Rev. CHANCELLOR J. J. LIAS, M.A., CHANCELLOR of LLANDAFF CATHEDRAL.

BEFORE entering into a critical examination of the portion of the Pentateuch, called of late "the Priestly Code," it seems necessary to preface my analysis by some preliminary observations.

First of all, we have heard a great deal from some quarters about the final results of modern scientific criticism. But is criticism one of the exact sciences; and if not, can the word "scientific" be properly applied to it? Science is knowledge, but if knowledge be not exact, at least as far as it goes, it is not knowledge. The value of physical science lies in the certainty of its results when once reached; and this certainty, be it observed, is attained by the practice of testing theories by comparing their results with observation. A vast number of observations, combining a number of various factors in the result, produce practical certainty. This is the inductive method, so often misunderstood. It does not, as some have supposed, consist in taking guesses for granted. The guesses are, it is true, assumed as a basis of reasoning; but only when the results of this process have been found to agree with observation are those results accepted as true. The apparent failure of some physical sciences to secure exact results is due to the premature publication of those results. Until all the conditions of a problem of vast range

have been sufficiently examined, no satisfactory results can be attained. The comparative failure, again, of metaphysics as a science is that it so often is made to rest, not on facts, but on hypotheses ; and that its conclusions have not always been tested by a comparison with facts. The science of psychology, when sufficiently advanced, will possibly do more to establish the laws of mental phenomena in a few years than has hitherto been effected in countless centuries.

Critical investigation, then, as it is not at present thoroughly scientific in its processes, cannot yet be represented as exact in its results. Speaking generally, there is a very wide divergence in the conclusions of historical critics, and a still wider one in those of literary critics. And when we approach the criticism of Scripture, the divergences are greater still : first, because the enquirer, who believes himself to be a man of science, persists in ignoring necessary factors in the problem he sets himself to solve ; and also not unfrequently takes extremely wild and arbitrary assumptions as his bases of reasoning. Thus, Wellhausen declares that he alone, in the long list of analytic critics whose researches have come down to us, has arrived at certainty in his results, because "he has added historical to literary criticism." But what does he call historical criticism ? His method consists in a liberal use of the argument *e silentio*, and rests on the assumed right of the critic to strike out from the authorities with which he deals every statement which is not reconcileable with his preconceived opinions. His ultimate conclusions are therefore very far from being unassailable. The argument *e silentio*, for instance, has been used in Archbishop Whately's celebrated *jeu d'esprit* to prove that the Allies never entered Paris in 1814, because no reference to the event is to be found in the Parisian journals of the next day ! The truth is that the more obvious an historical fact, the more often it is passed over *sub silentio*, because its existence is taken for granted. Obviously such methods of investigation would make history impossible.

A third eccentricity of the so-called scientific investigator is the assertion that the "Priestly Code," though a post-exilic production, is not only a "codification" of laws which had long been in existence, but that it also contains additional laws and ceremonies which were brought into existence after the return of the Jews from captivity. This extraordinary expedient is adopted in order to explain away the mention in the previous history, should it occur, of any laws which it has been found necessary to include in the Priestly Code. But as the critic has, so far, never attempted to tell us which provisions of that Code

are, and which are not, post-exilic, his methods cannot possibly lead to any satisfactory result.

So much for the "scientific criticism" of which we have heard so much of late. It not only establishes nothing, but it makes all attempts to establish anything impossible. It makes a great show of learning and ingenuity, but the learning is beside the point, and the ingenuity is wasted. For true inductive processes we must have ascertained *facts* on which to rely; the destructive criticism, now in vogue in the field of Scripture, first destroys all the facts, and presents us with undemonstrated propositions in their stead.

Before I proceed to deal with the phenomena of the Priestly Code as evidence of its date, I must explain what is meant by the "Priestly Code." The phrase is an invention on the part of the modern critic; we critics of the older school contend that there is no such thing, but that what has been so called is an integral part of the Law of Moses. When separated, by a process highly ingenious but altogether inadmissible, it consists of a series of extracts from the Five Books of Moses, based on the principles indicated above. Sometimes it consists of chapters, or portions of chapters, forming passages of considerable length, but more often it is made up of scraps of three or four verses, or even sometimes of half or a third of a verse said to have been introduced by a late editor into a compilation of his own from the works of earlier authors. But the whole Book of Leviticus forms part of it. It would take up too much time for me to go into details, but these may be found in Dr. Driver's *Introduction*, or in any other book professing to describe the latest form which criticism of this kind has assumed. I may add that an important discovery has lately been made by Mr. Harold Wiener in connection with this subject to which I will presently refer.

I shall now proceed to show (1) that the alleged characteristics of the Priestly Code are, scarcely any of them, post-exilic; and (2) that the marked post-exilic Hebrew of Ezra and Nehemiah display characteristics which are as markedly absent from the Priestly Code.

(1) Some introductory remarks may be needed before we go into detail. The delimitation of the so-called Priestly Code was first made when Wellhausen and Kuenen were contending that Ezekiel was "the father of Judaism," and that Ezra had in his hand the completed Pentateuch when he read it before assembled Israel.\* Circumstances have since led their disciples to postdate

---

\* Ezra, ix, 3.

their "Priestly Document." It is remarkable, by the way, how often "the fixed and unalterable conclusions of modern scientific criticism" have had to be altered and unfixed. Prof. Driver and his followers now deny that the Pentateuch was completed until after the return from the Captivity. Prof. James Robertson has complained of the want of frankness with which this change has been adopted.\* Made as it has been, it would elude the attention of any but the closest observers. But Nemesis is always waiting for us. The slightest change in the elaborate house of cards, so often built up and knocked down again by the analytic critics during the last few centuries, brings it once more to the ground with a crash. In the days of Wellhausen and Kuennen, when Ezekiel, as we have seen, was regarded as the practical inventor of the Law of Moses, the words and phrases said to be characteristic of "P" would naturally appear in the book, written by its "founder." Now it has become entirely post-exilic in its origin, and the theory that Ezekiel, not Moses, was the "founder" of Israelite institutions has been dismissed to the limbo into which so many exploded theories have already disappeared. Many of the alleged characteristic expressions of "P" are not found in the post-exilic writings, and are not characteristic of the post-exilic period.† Therefore the theory so laboriously built up falls to the ground. Were "P" indeed post-exilic, it would undoubtedly betray distinct traces of its origin. No such distinct traces exist. Thus the phenomena presented by "P" are not inconsistent with its Mosaic origin. The occurrence of its phrases in the later Hebrew may be accounted for by the fact that the later Hebraists, Ezekiel for instance, were diligent students of the Mosaic law. And the same diligent study would account for the fact that even the post-exilic prophets, though betraying their date by the use of foreign words,‡

\* *Early Religion of Israel*, Preface, p. x. His words are noteworthy : "Statements such as these I have quoted amount in my opinion to a set of critical canons quite different from those of Wellhausen, and Dr. Driver would have been no more than just to himself if he had (as König has done) accentuated the difference."

† Prof. Driver (*Introduction*, p. 138) says that "Ezekiel's book contains clear traces that he was acquainted with 'what the critics now call the Law of Holiness' (*Leviticus, xvii-xxvi*)," therefore "P" contains laws which were made before and after the Return from Captivity. Can the critics tell us which are the earlier laws and which the later ? If they can, why have they not done so ? And until they have done so, of what use is their discovery ?

‡ *Pachadh*, for instance in *Haggai*, i, 1, for "governor" *shebat* (*Zechariah* i, 7), the name of a month.

could cast their prophecies into the earlier and purer Hebrew form, whilst simple narrators, like Ezra and Nehemiah, betray, as will be hereafter seen, the fact of their long sojourn in a strange land at every step. "P," of course, has its narrative passages, as well as its legal specialisms. But *never once* does the "Priestly Code" fall into any expression which betrays Babylonian or Persian origin, as the returned exiles continually do.\*

I.—We proceed to discuss the critical question in detail. The words and expressions specially characteristic of "P" are stated by Dr. Driver to be 45 in number, beside geographical terms. These last need not be discussed. To avoid wearying my hearers and readers by technicalities unfamiliar to them, I shall only discuss some of the most significant instances; I shall relegate some more to the notes, where the reader can investigate them, it he pleases, at his leisure. For the rest I must refer those who read this paper, or hear it read, to two papers in the American *Bibliotheca Sacra* for January and April, 1910.† I must also premise that although I and II Chronicles are allowed on all hands to be post-exilic books, a formal analysis is impossible; because, as Prof. Driver declares, Hebrew historians were compilers, and their method of compilation consisted almost entirely in transferring bodily to their pages the passages they extracted from those whose works they used. Therefore, as the Chronicler tells us that he quotes many pre-exilic authors, some portions of his narrative must have been written by himself, and some, ages before his time.‡ This would make a linguistic analysis of his work practically impossible, though it might be a useful exercise for the critic in a region where we possess some information whereby to test his assertions.

1. *The Name of God*.—As everyone who studies the subject knows, this has been, and sometimes still is, represented to be

\* English law terms now in use frequently take us back to the days when French was the language of the law courts, but Haggai and Zechariah, Ezra and Nehemiah, use words denoting offices of state and the like, which are indubitably of Babylonian or Persian origin.

† London Agent, C. Higham & Son, Farringdon Street.

‡ I showed years ago in *Lex Mosaica* that this statement of Dr. Driver is far from correct. But he has continued to repeat it. If he is right, I am justified in regarding Chronicles as full of exact quotations, though Dr. Driver asserts (without proof) that the Chronicler did *not* use the authorities he pretends to follow. As a fact, he sometimes introduces, bodily, portions of Kings, and sometimes re-writes them. We may take it, therefore, that he has dealt with his other authorities in the same way.

the determining test by which the documents are to be separated. But this test has really been abandoned long since, both by Hupfeld, and Dr. Driver himself. Moreover Dr. Driver, in his analysis, "excepts" Genesis xvii, 1 ; xxi, 1b. This is simply a confession of failure. How can "Jehovah" occur in two verses of "P" when the basis of reasoning is the supposed fact that the author of "P" is an Elohist? It is also asserted that, as soon as the Priestly Codist gets to Exodus vi, 2, where Elohim reveals Himself as Jehovah, the former strict use of Elohim ceases. But Elohim still continues to be used; only, after this revelation of the Covenant Name of God, the use of Elohim ceases to be a distinction of authorship. But then, how can it be contended that it ever *was* a distinction of authorship? The ideas involved in the Name Jehovah may as well be supposed to have been projected by a later author into history of the past as employed in the later history.

2. There are 11 words or expressions out of the 45 adduced, which only occur in "P." Obviously they constitute no proof that "P" is post-exilic.\*

3. There are 9 which only occur in "P," Ezekiel or Jeremiah. These give no countenance to the post-exilic theory of "P's" origin. The two prophets may have been, and there is very little doubt now that they were, quoting a document of the Mosaic age. This disposes of 20 of the 45 instances, and thus materially diminishes the evidence that "P" is a post-exilic fragment.

4. Dr. Driver, once or twice, strangely describes the "Deuteronomist" as deriving his use of such a word as *mîn* (translated "kind" in Genesis i and elsewhere) from "P." As the "Deuteronomist" is asserted to have preceded "P" by some two or three centuries, it is difficult to see how this could be. Dr. Driver makes the same remark about the word *sheretz*, "to abound" or "swarm," which occurs (noun and verb) frequently in the Pentateuch.†

5. There are 12 words or phrases said to be characteristic of "P" which occur elsewhere, and are therefore not characteristic of "P." Some are said "to occur in poetry,"—a good argument for the very early origin of "P," but none for its being post-exilic. Everyone knows how often poets, whatever their

---

\* Some of these occur in Chronicles, but for reasons already given are not counted.

† As to the word *mîn*, it is obviously a technical word, corresponding to the technical word *genus*, as now used by zoologists, and was doubtless thus used by Ezekiel.

country and language, make use of archaic words, which have long fallen out of use in conversation or ordinary narrative. Sometimes the text of the passages outside "P" in which the word occurs, is said to be "doubtful." Though a "doubtful" text is not necessarily corrupt, it is certainly worthless in controversy. One word, "congregation" (*ghedah*), is said by Dr. Driver to be "rare in the other historical books." But, as the other historical books were written long after Israel had settled in Palestine, there was every reason why the use of the word should have become rare.

6. The words peculiar to "P" are thus reduced to 13 in number. It is scarcely worth while to discuss all these in detail. One of them, said "not" to be "the usual word" for "half," does occur in Nehemiah. This might have furnished an argument had it not been confessed that the word appears in I Kings xvi, 9. Concerning a second expression out of the 13, Dr. Driver adds in a parenthesis, that he does not give "a complete enumeration" of the passages in which it occurs. Then how does it come in as an argument? A third word (*recush*) "substance" or "possessions" and the cognate verb not only occurs in "JE" as well as in "P" but it occurs several times in Genesis xiv, of which the critics have denied the genuineness, assigning it to a special document thoroughly inconsistent with the rest of the narrative.\* It does occur in the post-exilic narratives, but is *not* peculiar to them and P.

II.—I propose now to reverse my former process, and to show that post-exilic historians (Chronicles excepted for reasons above given) contain a large number of words and phrases entirely absent from "P." I fear that space will prevent me from going further than an analysis of Ezra, and indeed the subject is, as a rule, too technical for a general audience. I will first give a brief analysis of each chapter, and then proceed to comment on some words and phrases which present points of special interest. But I shall be obliged by the rules of the Institute to stop short

---

\* The case of Genesis xiv is a very unfortunate one for the critics. Many of the names mentioned occur in contemporary tablets, such as Amraphel, Arioch, Ellasar, Tidal. The word translated "nations" (*goim*) also appears in the tablets. *Kedur* and *Lagamar* (Chedorlaomer) appear in the tablets, though not together. Worse than all, Genesis xiv seems to hint at the subsequent subjugation by Amraphel of his former leader Chedorlaomer. It should be noted that the vowels were seldom introduced in the early oriental texts. The only possible line of defence is that the names are not, and cannot be, the same, but the vehemence with which the defence is made suggests that the position is not too defensible.

before I come to the end of these. I have already hinted that the prophecies of Haggai, Zechariah and Malachi, are, as a rule, written in the ancient Hebrew. But when they touch on historical names and offices, they use post-exilic names for them. "P" never, by any chance, does this. If they could not avoid it, how did he manage to do so?

Chapter i.—In Ezra i, 1, occurs a word, which, in the sense used here, is only found in "P" and the post-exilic books. This is nearly all the evidence the critics have found in their favour. *Per contra*, there is in this verse a word, meaning a royal decree (lit. "a thing written") which does not occur in "P," or in any pre-exilic book (admitted to be such) in this sense. In the Pentateuch it means "a writing." The rest of the chapter contains as many as ten expressions which are not found in "P." Some of them are altogether post-exilic; some occur only in the exilic or post-exilic writers; some are found as early as Judges. Instances of peculiar turns of expression are more important than single words. They point to alterations in the style of a language, which indicate a difference in date,—alterations such as Americanisms and "journalese" are now making in the once grand old English language, and may be found by the score in every copy of our daily papers. The changes in the use of prepositions, one of which occurs in this verse, into which "P," had he been a post exilic-writer, would have been sure to slip, are among the most significant signs of transition in a language.\* One of the words used is Aramaic, and occurs also in the portion of Ezra which is written in the Aramaic. Aramaic was the language of the country outside Judea, and was kindred to Hebrew and to the Babylonian language. Another word is "probably" of the same origin.

Chapter ii consists chiefly of names. But the words for "province," two words for "register" (lit "writing,"—not quite the same word as in i, 1); the word *Tirshatha* for "governor,"† the words for "singing men" and "singing women," are peculiar to the post-exilic books. The word for "mules" appears first in II Samuel. "P" never slips by accident into any of them,—not even in his Egyptian history, which bears marks of close acquaintance with Egypt and its customs. Surely these facts demand some notice from the critics, though so far it has not been accorded to them. The *Nethinim* are mentioned in this

\* The Greek of the New Testament displays traces of the tendency to similar changes which have become fixed in modern Greek.

† See Nehemiah frequently.

chapter. They were probably the substitutes for the Gibeonites, whom Saul slaughtered. (II Samuel xxi, 1, 2; see also Joshua ix, 23-27.) "P" "knows nothing"—a favourite phrase of the German critics—of the Nethinim. Another point, too, demands further consideration. "P" "knows nothing" of *porters* (or *gatekeepers*). Of course not, for they were not wanted in the wilderness. The word here used occurs naturally enough in the historical books. But how was "P," who, we are told by the critics, made so many, and such terrible blunders, able to keep clear of it? He had, we are asked to believe, considerable powers of invention. Why did he not invent gatekeepers? The word for "*treasury*," used here, occurs in "JE," though never in "P." It is therefore probably a word of the Mosaic period. Also a verb meaning "to give willingly" occurs in Judges and the post-exilic books. "P" always uses a substantive and a suitable verb for such gifts.

Chapter iii.—Fifteen words which are not in "P" occur here; some of them date as far back as I Kings. Six of them are peculiar grammatical turns of expression, or words used in new senses. Two are Aramaic, and one of them is found in chapter vi, 9, the Aramaic portion of the book. One or two of them are very unusual constructions, and give considerable trouble to the translator. One is found in Isaiah lxx, in the post-exilic authors, and in Numbers xiv, but in this last the passage in which it appears is assigned by the critics to "JE." Now, as in Numbers xiv, verses 1, 2 (in the main), 5-7, 10, 26-38 are assigned to "P," it seems difficult to understand why this particular verse was not also assigned to him, as it would have made an additional argument for the post-exilic origin of that portion of the Pentateuch. Obviously, the fact was not discovered, or doubtless the passage in question would have been assigned to "P."

Chapter iv.—The use of *bahal* actively, for "terrify" (Piel and Hiphil), is a mark of the later Hebrew. The word *malkuth* for "kingdom" is rare in the earlier Hebrew, but frequent in the post-exilic writings. It occurs in Balaam's prophecy. Was that a case of early Aramaic?

From iv, 8 to vi, 18, the text is in Aramaic. We therefore proceed to vi, 19. The word *golah* for "captivity" has been already discussed. *Budal*, when implying moral separation, is not used in "P," where it means physical removal (Numbers xvi, 21, where, however, the assignment to author is of the arbitrary kind so frequent with the critics).

Chapter vii.—In the first nine verses,—of which the first six

consist almost wholly of names,—we find three unusual expressions which are not found in “P.” The first is found in the Psalms, the Proverbs, and in Isaiah xvi, 32; and though the *word* occurs in “P” and in the earlier Hebrew, it is used in a different sense. The other two are only found in the post-exilic books. All three words and expressions relate to quite ordinary ideas, but the words for expressing them have become different in the post-exilic period. One is the “hand” or “good hand” of God. All these expressions might obviously have occurred in “P,” but they never do. Verses 12–26 are a copy of a letter of Artaxerxes in Aramaic.

Chapter viii.—One word in this chapter does occur in “P” and the later Hebrew, but it also appears in what the critics call the “Book of the Covenant” (Exodus xx–xxiii), which the more moderate critics (they are by no means all agreed) assign to the Mosaic period; so it cannot be used to prove that “P” is not of Mosaic origin. Another word which occurs frequently in “P” and in the later Hebrew occurs also in Deuteronomy, which the critics consider to have been written some three centuries before “P.” Thirteen other expressions, some of them very peculiar post-exilic idioms, or clearly post-exilic words, are found in this chapter; “P” never uses them.\*

Chapter ix.—Here occurs the only other instance (*see* chapter i, 1) of an expression which is confined to “P” and the post-exilic writers. It may be dismissed as purely accidental. *Per contra*, many and most remarkable instances of peculiar words and expressions of the post-exilic period, including the use, or rather misuse, of prepositions, occur in this chapter. I am sorry that the limits to which I am confined do not permit me to particularize them. They are most significant. Some of them may be due to a corrupt text, though they are far more likely to be due to the mistakes of men who had learned to speak the kindred Babylonian language or the Aramaic dialect.† One of them is admitted by Dr. Driver to be “a distinctively late idiom,” and “common in post-Biblical Hebrew.” Again he neglects to tell us that it never occurs in “P.” Several of these passages,—and there are a good many elsewhere,—have

\* One of them appears in some copies of Moses’ Song (Deuteronomy xxxii, 2), but there is another reading. One relating to governors of subordinate rank appears in I and II Kings, in Isaiah, Jeremiah, Ezra, Nehemiah, Esther, Haggai and Malachi, but never in “P.”

† I have treated them at length in my paper on this subject in the *Bibliotheca Sacra* for April, 1910.

evidently given much trouble to the Revisers of the Authorised Version.\* Some of them can only be the result of the attempt to write a language with which the writer was imperfectly acquainted. In his notes on Ezra iii, 3, 4, Prof. Driver remarks that expressions there noted appear in the Aramaic portions of Ezra. Ezra, therefore, was acquainted with Aramaic,† and was unable to refrain from introducing expressions from it in his attempt to write pure Hebrew. Strange and unintelligible expressions appear continually throughout the book. But in chapter ix they are very numerous, and unusually interesting to a student of Hebrew. But I am afraid, did I enter into further detail, it would weary those unacquainted with Hebrew.

III. I have not attempted to analyse Nehemiah, Esther nor the post-exilic prophets, nor the other books which are supposed to have been written subsequent to the exile, for reasons already given. These latter are largely poetic, and poets, as we know, are apt to use archaic terms. But Prof. Driver has given in his *Introduction*, a list of words and idioms peculiar to the books of Ezra, Nehemiah and Chronicles, and I propose to conclude with some remarks upon that list.

It consists of about 50 words and turns of expression. Out of the 108 words and turns of expression in Ezra already passed in review,‡ only two are peculiar to it and to "P." Of Dr. Driver's list, consisting of about 50 words and turns of expression "distinctly post-exilic," as he admits some of them to be, and "common Aramaic words," as he admits others to be, only one is peculiar to the post-exilic writers and "P." It is true that Dr. Driver contends that there are two, but he forgets that the passage (Numbers xiii, 27) in which the second word occurs is assigned by himself to "JE," while Joshua xxii, 16, 31, which he also cites, is assigned by him to an "uncertain" source. Therefore, in this case the word is common to the Pentateuch ("JE" and "P"), "an uncertain source," and the post-exilic authors. So that the general conclusion to be drawn from the enquiry is that, of the admittedly post-exilic words and phrases, no more than one in about 50 is common only to the post-exilic

\* As may be seen in their marginal notes.

† Unless we are "scientific" critics of the school of the later critics of Isaiah, and divide the writer of the book of Ezra into ten or twelve different persons.

‡ Many of them are found in Prof. Driver's list, which, however, I did not consult before writing my remarks on them.

authors and to "P." And in the one exceptional case, the post-exilic writers might have had the completed Pentateuch before them, and have been quoting it. All this tends to confirm the traditional theory that "P," as well as the rest of the Pentateuch, was written before any other books.

Nor is this all. In spite of all this elaborate study of words altogether absent from the earlier books, and of the numerous involved, foreign, and sometimes quite unintelligible constructions, noted by Dr. Driver in the post-exilic books, he never once drops a hint that none of these expressions appear in "P."<sup>\*</sup> Is this because he is so obsessed by the idea that "P" is post-exilic, that it never occurs to him to notice any fact which throws doubt on that theory? It is at least fair to point out that observers who can only see the particular side of the case which they have elected to take are not thoroughly qualified for their task.

The fact, once more, that Ezra, unlike many other post-exilic authors, never uses the well-known post-exilic abbreviation *sh* for *asher* ("which"),<sup>†</sup> may be accounted for by the fact that he was a "ready scribe," and was therefore more familiar with Hebrew than most of the other writers of his period. The occurrence of the definite article for the relative pronoun, however, pronounced by Dr. Driver to be very unusual, and of doubtful occurrence elsewhere, is a construction found only four times in Chronicles and twice in Ezra. That it is absent from "P" is, as usual, a fact not noted. Moreover Dr. Driver adds that "Hardly a verse occurs written by the Chronicler himself which does not present singularities of style, though they are frequently of a kind which refuses to be tabulated." Peculiarities of style then are admittedly a characteristic of the post-exilic historians. Can it be a sound criticism which fails to observe that no such eccentricities have ever been detected in "P" ?<sup>‡</sup>

---

\* I have gone into a detailed examination of Dr. Driver's list in the article already named.

† It occurs frequently in Judges, where it is obviously a provincialism. The book was probably written by a northern Israelite.

‡ I find that I have neglected to remark on the fact that the post-exilic writers have quite a different coinage from that of "P" and writers of earlier date. The earlier writers ("P" included) know of nothing but shekels. The post-exilic authors occasionally speak of *daries* (coins of Darius). The Chronicler himself ventures on this point to introduce the more modern word into his narrative of earlier days. There are two such words used in Chronicles, Ezra and Nehemiah. One of them, that used in Chronicles, might mean the Greek *drachma*.

IV.—A few general remarks may conclude this paper. We commenced with the assertion that criticism, as at present conducted, is not one of the exact sciences, and that if on some points it may claim to be exact, those claims are confined within very narrow limits indeed. The instances given in this paper will be held by many of my hearers to confirm this assertion. And the way in which Wellhausen and his followers use what they call "historical" criticism, by adding which to literary they claim to have arrived at indisputable conclusions, will be regarded by most historical critics as altogether unique. The real fact is that, as the late Prof. Orr has reminded us, the authors of the latest form of analytical criticism, Graf, Wellhausen and Kuenen, were convinced that what is called "the supernatural" has no existence. It is on that basis that their enquiry is conducted; but, as I trust we have seen,\* an inquiry on that basis requires canons of historical criticism which are altogether inadmissible. Consequently, so far from being "scientific," the methods employed are the very opposite. The destructive critic, moreover, in assuming the impossibility of the supernatural, makes assumptions which have always been strongly contested, have frequently been disputed by scientific investigators, and at the last Meeting of the British Association were largely declared to be unnecessary and unreasonable. The presuppositions that every religion was evolved from fetishism, and that it advanced through animism and polytheism to monotheism, are not only shown to be incorrect by a scientific thinker so well known as the late Mr. Andrew Lang, but they can only be maintained by striking all assertions to the contrary out of the Old Testament Scriptures, and by turning their contents inside out and upside down. Their strongest and most solemn affirmations on religious matters are contradicted, and declared to be forgeries of a far later date,† The majestic Mosaic Law, with its extraordinarily minute foreshadowings of the Life and Teaching of the Redeemer of mankind, is, we are told, not Mosaic at all, but is "evolved" out of the most

---

\* See above, pp. 64, 65.

† See Pentateuch, *passim*, as to the fact that the whole civil, legal and ecclesiastical polity of Israel originated with Moses. As to the fact that the Old Testament asserts that from the first the religion of Israel differed fundamentally from that of the surrounding nations, see Deuteronomy v, 14, 15; viii, 19, 20; xi, 28; xiii, throughout; xvi, 2, 7; xviii, 9, 12, 20. Also Leviticus xviii, 2, 24-28; xx, 22-24, 26; Exodus, xxiii, 23, 24 is admitted to be Mosaic by many critics who deny the authenticity of the rest of the Pentateuch.

unpromising material possible, and at a period of Jewish history the most unlikely to give an opportunity of such "evolution" as could well be imagined. The most glorious poet-moralist that ever appeared in this world, every chapter of whose prophecy is stamped with the characteristics of his unique personality, is split up, to the edification of youthful pupils in "Colleges and Schools," into eleven or twelve different individualities of different dates and divergent mental characteristics. The wonderful passages in which the history of the Coming Messiah was foreshadowed, first vaguely in the Pentateuch, then more definitely in the Psalms, in the four greater prophets and in some of the minor ones, are with extraordinary inconsistency and ingenuity assigned to persons who have never existed, or declared to refer to events which never occurred. It was only natural that the superstructures erected on so sandy a foundation would prove very unsafe, and, as Mr. Harold Wiener has lately shown, the critics had reckoned without their host. They neglected textual criticism; they built their imposing critical structures on the Massoretic text, and lo! it has deserted them in their need. Even the author of the Commentary on Isaiah to which I have adverted has, as I understand, admitted lately that some, at least, of the critical work must be done over again. Thus the edifice, which has been constructed with such infinite care and pains, will have to be taken down, and some equally insecure fabric, we may be pretty sure, erected in its stead.

It could not be otherwise. True scientific investigation does not start on assumptions of infallibility; nor does it decline to recognize the labours of men in a far distant past. It does not scornfully refuse to be criticized; on the contrary, it recognizes the criticism of the critic to be a necessary mode of arrival at truth. It does not ignore the discoveries of others: it examines them, and, when fully established, incorporates them into its system. The "traditional" critic, who is often in these days laughed out of court, has made discoveries recently, as well as others, and he is quite as anxious to arrive at truth as anyone else can be. We shall never advance swiftly and securely in the criticism of Scripture until critics of all schools make endeavours to understand one another, and are willing, in a spirit of brotherly emulation, freely to exchange opinions on all questions which tend, directly or indirectly, to increase our knowledge of the Divine Scheme for the education of the world.

V.—I cannot refrain from adding a very few words on the general effect of such criticism, as I have been describing, on

Christian faith and morality. I have met with earnest believers in Revealed Religion, who have said to me that they did not care at what time the various books of the Old Testament were composed or compiled, because their contents were of such a nature that they compel every pious and godly person to bow before them as the voice of the Eternal God. The critics, too, have frequently endeavoured to gloss over the real tendencies of their criticism by arguing that it leaves the value of Scripture unimpaired or even enhanced by the light that is thrown upon them. But is this so? What is that "light"? It reveals to us, if the critics are to be believed, a volume which deliberately and perseveringly states what is untrue, because it has been deliberately and perseveringly forged in the interests of falsehood, which, in this particular case, happen to coincide with the interests of true religion. Any intelligent man, reading the Pentateuch as it stands, must feel that it distinctly asserts two propositions: first, that Moses was the ultimate source of the contents of that volume; and next, that he and he alone was the author of the civil and religious code which Israel has handed down to subsequent ages. The critics tell us that both these statements are false. I have no objection to concede that "JE," as a portion of the volume is called, may claim to be exempted from the accusation of deliberate falsehood. Its authors may have collected to the best of their ability the unwritten traditions they found existing in their respective neighbourhoods some hundreds of years after the events narrated are supposed to have occurred. But the critics at least give us to understand that none of these traditions had any solid foundation, and that in the main they must be pronounced contrary to fact. And no excuse, at least, can be made for the author of Deuteronomy and for "P." The former, we are asked to believe, deliberately composed his book in the name of Moses in the reign either of Ahaz, Hezekiah, Manasseh or Josiah, in order that he might lay the foundations of a monotheism in which his forefathers had never believed, and carefully smuggled his book into the Temple, in the hope that it might be found there, and that this might lead to the idea that it was really an ancient document! So also we are asked to accept the postulate that the author of the Priestly Code knew perfectly well that Moses had not given the instructions contained in Leviticus; but so long as he could make the Jews believe that he had done so, it did not matter in the least whether his statements were true or false. Then again, we are asked to take it for granted that a large number of scribes gave

themselves to the task of interpolating and fusing all the histories in order to bring them into line with the forgeries of their own time. The morality of these proceedings is on a level with the probability that so shameless an imposture should ever have led an undeniably great nation astray. We are in the habit of reading the Scriptures in public at our worship. But can any man with a spark of honesty in his composition who believes in these astounding theories, ever read these books in the congregation without telling the poor deluded creatures who are listening to him, that they must not for a moment imagine these stories to be true?

Moreover, having got so far, critical science is compelled to go further still. It now tells us that the Gospel of St. John, composed, as the liberal critic Harnack has admitted, within ten years of the period to which the Christian Church has for eighteen centuries assigned it, does not, as it pretends to do, contain the teaching of Christ; that it was deliberately forged in the name of the Apostle who leaned on His breast at the Last Supper; and that the Christian Church was tricked, no one knows how, into accepting it, and handing it down as genuine.\* And yet Irenaeus, who was the disciple of Polycarp, who was the disciple and personal friend of St. John himself, speaks of that Gospel as one of the four foundations on which the Gospel message to the world is based. It is not likely that I shall read another paper before the Victoria Institute; but the last words I am likely to speak here may well be a protest, in the Name of the God of Truth, on the part of one who has been a minister of Jesus Christ for 55 years, against such theories of the composition and transmission of books which, from at least three centuries B.C. to the twentieth century after His Coming, have been acknowledged by the Christian Church either to be authentic histories of the works and words of our common Master, or of the preparation for that Coming. It is a strange way of recommending Him to the present and to future ages, to contend that He, Who was the Truth as well as

---

\* Criticism which boasts that it is "scientific" does not scruple to ignore the fact that it must have been altogether impossible in the first two centuries of the Christian era to launch forgeries upon so unique a society as the Christian Church. Not only were the members of that society drawn closely together by mutual offices of love, but, as the Acts of the Apostles clearly shows, the constant mutual communication between its members in every part would make the detection of a forgery immediate and inevitable.

the Way and the Life, has allowed His character and message to be obscured by falsehood and forgery, and that for the truth about Him He has left us to the researches of scholars who do not, and cannot, agree among themselves as to what He did or said.

#### DISCUSSION.

Mr. HAROLD WIENER regretted that he had been so busy since he had received his copy of Chancellor Lias' important paper that he had had no time to examine into the details of his linguistic argument, but the opinions of the critics in this respect had undergone great changes from time to time. For instance the word *recush*, referred to on p. 69, occurred in Genesis xiv, which had been generally ascribed by the critics to post-exilic times, but a recent critic, Sellin, now ascribed it to pre-Mosaic times; the widest range possible. But indeed the linguistic argument of the critics rested on sand. Professor Eerdmans, the pupil and successor of Kuenen, after prolonged study of it, had been forced to discard it altogether. Inferences that had once been accepted as not mere theories, but immutable facts, were untenable, since the remains of Hebrew literature were much too scanty to supply the means of dating single words.

But he would wish to turn from the argument drawn from language and ask them to consider the substance of the Priestly Code. Did it bear the marks of the post-exilic period, or lend itself to late surroundings? The dress throughout was purely of the desert life. It might be said that the originator of the Code tried to project himself backwards into desert conditions, and give his laws a desert setting, but if they looked beyond the mere phraseology, to ascertain what was the heart of the Code, they found conspicuous the duties of the Levites. One whole tribe was set apart for work connected with the Sanctuary—he would not use the word "tabernacle" as that was assuming the issue to some extent. The chief duties of the Levites were to take down, pack up, carry from place to place, and set up again the Sanctuary and its furniture. What sort of relation had this to the circumstances of the men of either the exilic or the post-exilic age? How could such laws possibly apply to the second Temple? We must presume some degree of intelligence in the forger of the Code, but if we lay aside

Deuteronomy, the Code assigns nothing else for the Levites to do. The book of Chronicles represents the completed Law in action according to the Wellhausen school, but if we compare its statements about the Levites with the rules of P, we find that, according to the latter, many of the duties assigned by the Chronicler to the Levites would have been visited with death by the author of P!

If we take the Priestly Code alone, the priesthood is represented as being very simply constituted—one man, the High Priest, and his sons. If we turn to the first book of Samuel, to the account of Eli, we find that the High Priest has patronage and emoluments at his disposal :—“Put me, I pray thee, into one of the priest’s offices that I may eat a piece of bread.” There is no organization corresponding to this state of things in P. Further, Leviticus refers to a primitive time when men slew their own sacrifices. Later on, under the kings, when the people were more civilized, this duty was delegated to others, and Ezekiel complains that heathen were employed to kill the sacrifices. Throughout P, the congregation is evidently within a stone’s throw of the Sanctuary. Thus in Leviticus xvii it is assumed that animals can be brought to the door of the Sanctuary for sacrifice, and in P if any man is ill or ceremonially unclean in the first month of the year, he is to keep the Passover in the second month. How would such provisions fit a period when there was a large diaspora in Babylon and Egypt? So with the provisions for leprosy. How was it possible for a man in Babylon in post-exilic days to bring a garment suspected of leprosy to Jerusalem, for the priests to examine it? A very striking case is that of the daughters of Zelophehad. This must have been a case of common occurrence, when a peasant died and left no male heir; it could not have been left to be regulated many centuries later by a forger. The inheritance of Zelophehad was confirmed to his daughters, but it was objected by the other members of the tribe, that if these married out of the tribe, the inheritance would pass away from the tribe; so it was enacted that they must marry within their own tribe. How could this law have been laid down after the exile when the tribes had ceased to have a separate existence?

Professor Eerdmans has dealt with Leviticus lately in “Das Buch Leviticus” [1912], and however far we may be from accepting his construction the study contains a great deal of very valuable material.

The only criticism that he would make on Chancellor Lias' paper was this, that the critics would always shuffle out from an argument resting on the linguistic basis.

Mrs. MAUNDER pointed out that the critics ascribed the Priestly Code to the time of Artaxerxes Longimanus, when the Zoroastrian faith was in full vigour. The Jews had then been under Persian rule for 80 years, whereas they had been under Babylonian for only 50. If this were the date of the Priestly Code, we ought to find some traces of, or reference to, the Magian and Zoroastrian doctrines. We do find such traces in the book of Tobit, the keynote of which is the pious action of Tobit in burying the body of a murdered countryman; the author assuming that the burial customs at Nineveh in the days of Sennacherib were the same as he had experience of some centuries later at Rhagae and Ecbatana. Now in the whole of the Priestly Code we have no hint of the knowledge of such a custom as the exposure of the corpse to be devoured by birds and beasts, the fundamental practice of Zoroastrianism. We find from the Talmud that the later Jews imbibed a number of superstitions concerning devils and demons from the Persians; there is no trace of any of these, either by way of recognition or condemnation, in the Priestly Code. In the Zoroastrian idea, the north was the abode of devils; it was forbidden to pour out, even one's household water, towards the north, lest it be taken as a libation to them. But P orders in Leviticus i, 11, that the priest shall kill the sacrifice before the altar, "northward" before the Lord.

Canon R. B. GIRDLESTONE hoped that so far from this being Chancellor Lias' last paper to them, he would live twenty years longer and give them many more. He had been very glad to see that Mr. Wiener was there, and to hear what he had said; especially as he belonged to the Israelite people. He was right in saying that they must consider the setting of the Code as well as its words. If they took Leviticus as a whole, and as a member of a still greater living whole, then they could see how admirably it fitted together. But on the other hand he was not willing to surrender the linguistic argument, which was most precious. They found in the Pentateuch old words, a definite coinage that vanished in the later books. When they compared the books of Samuel and Kings with Chronicles, and tested the Hebrew, sentence by sentence, they found that the Chronicler, whilst quoting from Samuel and

Kings, often varied individual words, substituting for the older one the word current in his own time. It was often extremely difficult to tell the date when a word originated ; when, for instance, did the words "slump" and "meticulous," which are now current, first come into use ? But sometimes a word marked a date distinctly ; if, for instance, we found in a book purporting to have been written a hundred and fifty years ago, the word "boycott," we should feel suspicious. So the use of the "talent" as meaning a man's gifts, could not well be earlier than our Lord's parable. The omission of a word proved nothing, unless the context had required it to be used ; there must have been something suitable to introduce it. Sometimes, however, there were two words for one thing, as, for instance, there were two words in the Hebrew for a "sickle," the one used in the earlier documents, the other in the later. So with the "shewbread" ; the first name for it, described its use ; the second word, which might be more fitly rendered "rowbread," referred to the arrangement of the loaves in rows. Again the name of David is differently written in Samuel and Kings from that in Chronicles ; in the first there are but three letters, in the last there are four. There are also dialectic differences ; here in London there is a very distinctive dialect, one that he was thankful he had never been able to acquire—the Cockney dialect. Arabs at the present day have no p in their alphabet, and the Ephraimites were unable to say "shibboleth." Leviticus is a book of Ritual, not of History, and abounds in technical words which need accurate translation. They run through the Old Testament. Whence came the word *Ephah* if not from Egypt ? What has happened to the familiar Tabernacle of meeting between Leviticus and Ezekiel, so that whilst it is found dozens of times in the one book it is only in what may be called an antiquarian note in the other (chap. xli, 1) ? How is it that the "sheep" of Leviticus are conspicuous by their absence in Ezekiel ? Similar questions *may* be asked—and *will* be asked about other words. They need patient study and will repay it. So will the terms of the great prophetic chapter (xxvi) if they are traced through the other books.

Mr. E. WALTER MAUNDER drew attention to the statement in the first chapter of Genesis that the sun and moon were for "seasons," as well as for signs, and for days and years ; "seasons" meaning times for solemn assembly for the worship of God. In the

ceremonial law the sun and moon were for "seasons," in this sense. The sun, by its rising and setting, gave the seasons for daily worship ; the moon by its appearance as "new," the season for monthly worship ; sun and moon together, by the full moons of spring and autumn, the seasons for the two great annual feasts of Passover and Tabernacles. This system was raised to a higher plane by the sanctification of the seventh ; the seventh day was the Sabbath, the day of worship ; the seventh month was pre-eminently the month of worship ; it opened with the Feast of Trumpets, its tenth day was the great Day of Atonement ; the seventh year was the Sabbatic year. And the week, whether of the day or of the year, was itself raised to a higher plane ;—the week of weeks in days from the morrow after the Sabbath of Unleavened Bread, was the Feast of Pentecost ; the week of weeks in years terminated with the blowing of the trumpets of Jubilee after the High Priest had pronounced the solemn absolution of the people at the close of the Great Day of Atonement. This was the time of "the restitution of all things" ; the nation was cleansed from its sins, the Hebrew slave regained his liberty, and the alienated inheritance returned to its former owner. But this period of a week of weeks of years is a "restitution of all things" in the calendar ; to use an astronomical term, it is a lunisolar cycle. The Jewish calendar was then regulated by actual observation ; the month began with the actual observation of the young crescent in the sky ; the first month of the year, Abib, the month of green ears, was that when the barley was sufficiently ripe for offering. But it would occasionally happen that the sky would be cloudy at the beginning of a month ; then some rule had to be followed ; and the priests had only to ascertain what was done in the corresponding month of the corresponding year of the preceding Jubilee period, to know what they should ordain.

What connection has this with the date of the Priestly Code ? Just this. This system could only work as long as the Jews dwelt in the narrow compass of their own land, for the Jubilee cycle was not nearly accurate enough for use after they were scattered from Media in the north to Syene on the Nile in the south. But we know that they then had some means of arranging their calendar, for a number of commercial contracts have been found at Syene, bearing both Egyptian and Jewish dates. As we know the Egyptian calendar, the Jewish dates can be interpreted, and it appears that the

Jews were then able to predict the new moon. This they probably did by means of the luni-solar cycle for 19 years that gives us the Golden Number of the rules for finding Easter, in our book of Common Prayer. The present Jewish calendar is founded on this same Metonic cycle, as it is usually called. The dates of these contracts extend from the reign of Xerxes to that of Darius Nothus, so that the very period of the supposed origin of P is covered. It is clear that the Jubilee cycle was not, and could not have been, used for dating these papyri; and that once the 19-year cycle had been discovered, no new ceremonial system based on the 49-year cycle, which was only fitted for a small country, would have been invented amongst the Jews of the Dispersion.

Dr. THIRLTE remarked that when examining the claims of the Priestly Code, we are compelled to consider other aspects of analytical theory as it regards the Pentateuch. Then we find that the entire budget of critical speculation goes together—and thanks to the labours of scholars in many lands, it is all going together in another sense!

Mr. Harold Wiener, to whom we have just listened, has put criticism “off its feet” in regard to its prodigious inferences from the distribution of the Divine designations.

In the Pentateuch we have the priesthood and offerings; in the so-called “Code” the same features appear. The difference lies here, however: while the Pentateuch exhibits the institutions in relation to Moses, the law-giver of Israel, criticism represents them as coming on the scene after the time of the great prophets. The confusion is not one of documents merely, but of the objective content of history, as it relates to the ways of God in dealing with the Israelitish nation.

A short time ago, Rev. Iverach Munro read before the Institute a paper on the Samaritan Pentateuch and its problems. We do well now to recall that the facts of that well-known recension of the Pentateuch supply an unanswerable case against the post-exilic date of the Priestly Code, and for that matter of any part of the early books of the Bible. The schismatic history of the Northern Kingdom of Israel demands the institutions—that is, the material content—of the Priestly Code centuries before the exile. Without the aspect of schism, joined to that of rebellion, we cannot understand Israelitish history, either as regards the Ten Tribes or the Two.

The Rev. F. E. SPENCER said: I desire to apply as briefly as may be the scientific inductive method to the books of the Chronicles, and, I believe with the good will of Chancellor Lias, to draw conclusions from this method which may supplement what has already been said.

The Chronicles divide into parts, of which the sources are either given, or may be inferred. I propose to offer an argument, which may be called an argument strictly from what is called source criticism. The sources of the Chronicles are fairly certain. They consist of ancient genealogies; lists extracted from the archives which began with David; speeches and histories derived from prophetic writings contemporary with the events; a Psalm sung at the bringing up of the ark; and other like things taken from old contemporary documents. The Chronicler selects these with a clear purpose, hands them on in a manner which clearly evidences, as Graf has proved, one hand, and adds reflections of his own. As certain of these ancient documents are longer or shorter extracts, forty-five in number, from Samuel and Kings, we may clearly trace the hand and manner of the Chronicler in transcribing them, and arguing from this, and from treatment which is exactly on the same lines which we find in the other parts, we may infer that the way in which he has handled documents now inaccessible to us resembles his manner of treatment of Samuel and Kings. I think we are all along on completely safe ground. We are not forcing an hypothesis, but examining facts and explaining them. We have the advantage in this investigation of help from Girdlestone's Deutero-graphs, Davidson's very thorough researches, Graf's monograph, and Kittel's Critical Hebrew Bible. Davidson's researches are of peculiar value in this matter. They date from 1862. They are quite free from prejudice, without the slightest apologetic leaning, and have no hypothesis to serve. Davidson also, in the Chronicles, is comparatively free from that infusion of vinegar which vitiates his otherwise valuable Introduction for the ordinary reader. Graf, in 1866, is bent on a hypothesis, but is still scientifically valuable.

To gather up then the result.

We find we have clear reason for attributing complete honesty to the Chronicler. Throughout he is compiling ancient sources. He did not invent David's speeches. He was not competent to do so. He only modernised them. I think the more reasonable account of

the Psalm, very expressly said to have been sung at the bringing up of the ark, is, that the Chronicler is correct to his source. It was so sung. And the constituent parts of it were, either before or after, taken up into the official Psalm-book in a different way, *i.e.*, it was either adapted from existing Psalms, or taken up into Psalms 96 and 105 later.

The Chronicler all along modernises and explains every one of his ancient sources. Perhaps the most striking instance is when in I Chronicles xxix, 7, he calculates the offering of David's princes in darics, which were certainly not the Davidic currency. Nor did the Chronicler think so himself. We have the authority of Buhl for saying the word means darics, the Persian currency. It will not be necessary to labour the point that the Pentateuch discovers not a trace of this modernising and explaining. The Torah, on the contrary, is allowed on all hands to hand on traces of a much more ancient past in words and things. A large part of it is only applicable to a camp in the desert. In the Chronicles much is altered. But none of these alterations, modernisings, or explanations have invaded the Pentateuch text in any way, though there are traces of later editing here and there.

I hold, therefore, that it is a good and scientific inference that these facts point to the Pentateuch having come down to the Chronicler's time as a sacred deposit—far too sacred to be tampered with—from the ancient times, which its own witness professes.

If P was only recent in the Chronicler's time, or if P was only then coming into being, traces of the Chronicler's method and style, which was the method and style of his time, would infallibly have been found in it.

Mr. MARTIN L. ROUSE thought that no evidence of chronological custom should be based upon the Assouan papyri, since, to his mind, the genuineness of those documents was open to question.

Prof. LANGHORNE ORCHARD congratulated the Institute upon this important paper, read to them by a distinguished scholar who knew so well how to yoke learning with logic, and harness them both in the service of truth. They all hoped that he would be spared to give them yet other papers as valuable as this, for which they heartily thanked him.

The Meeting adjourned at 6.30 p.m.

552ND ORDINARY GENERAL MEETING,

HELD IN THE ROOMS OF THE INSTITUTE, ON MONDAY,  
MARCH 2ND, 1914, AT 4.30 P.M.

THE REV. CANON R. B. GIRDLESTONE, M.A., VICE-PRESIDENT,  
TOOK THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed, and the SECRETARY announced the election of Mr. George Avenell as an Associate of the Institute.

— — — — —  
*THE CHARACTER OF THE BIBLE INFERRRED FROM  
ITS VERSIONS.* By the Rev. T. H. DARLOW, M.A.,  
LITERARY SUPERINTENDENT OF THE BIBLE SOCIETY.

MORE than forty years ago Henry Rogers, the author of *The Eclipse of Faith*, published a volume of lectures which he entitled *The Superhuman Origin of the Bible inferred from itself*. The lecturer set out to show that Holy Scripture cannot be accounted for as the mere product of human faculties and forces. He argued with singular power "that the Bible is not such a book as man would have made, if he could ; or could have made, if he would."

The present paper only attempts to illustrate and develop one minor aspect of a corresponding argument. For several years it has fallen to my lot to study the history of Bible translation. And I venture to believe that certain conclusions in regard to the character of the Bible may be inferred from its versions in so many varieties of human speech.

To begin with, let us recall one fact which is so obvious that it escapes attention. To nine hundred and ninety-nine persons out of every thousand the Bible can only come in the shape of a translation. Even among the members of the Victoria Institute many would confess that they do not habitually read their daily portion of Scripture in Hebrew or Greek. And for the mass of mankind such reading of the original text is plainly impossible—and always will be. God's Book

was meant to be translated ; and God's purpose is fulfilled as the Bible speaks to every man in his own tongue in which he was born.

The command to go into all the world and to preach the Gospel to every creature applies to the Bible as well as to the Church ; and to fulfil its mission God's Book must needs become all things to all men. The translation of the Scriptures began in the earliest ages of the Church, and moves along the central tide of Christian history. This work did not wait for the formal decree of any Council ; it proceeded from the deep, spontaneous Christian instinct that every man must learn the Gospel in his own tongue. Early in the second century, from the Church at Antioch where the disciples were first called Christians, came the original impulse to turn the Scriptures into Syriac, which was then the common speech of the regions lying east of Antioch towards the Euphrates valley. About the end of the third century, though in the Church at Alexandria men spoke Greek, the first Coptic version arose, made for the native Egyptians. In the fourth century, from the Church at Constantinople proceeded the early Gothic version, for the barbarous invaders of the Eastern Empire. From the Council of Ephesus a band of young Armenians carried back to their native land certain manuscripts, by whose aid the Armenian version was formed at the end of the fifth century, after Miesrob had for that purpose constituted the earliest Armenian alphabet. Similarly, in the ninth century, Cyril and Methodius invented what has since become the Russian alphabet and translated the Scriptures into Slavonic—the beginning of books and of letters for the great Slavonic race. The Frankish and Teutonic conquerors of the Western Empire accepted Latin as the common tongue which every educated man could read and speak ; so Jerome's Latin Bible became for them not a sealed book, but literally their Vulgate, or common version, and remained the Bible of Western Christendom for a thousand years. When printing began in the middle of the fifteenth century, it was natural and fitting that the first complete book to issue from Gutenberg's press at Mainz should be the Latin Bible. More than 100 editions of the Vulgate were printed before that century ended, and other versions speedily followed in the principal vernaculars of Europe. In Italy, for instance, the Italian Bible was printed a dozen times before the year A.D. 1500 ; and in Germany eighteen folio editions of the German Bible had already appeared when Luther published his New Testament.

But the history of Bible translation is too long to summarize. Let me only mention some results. So far as I can form an estimate, after research among printed editions of the Scriptures, I find that at least some book of the Bible has been translated and published in about 680 different languages and dialects. That total, however, includes certain obsolete languages represented by the printed text of early manuscript translations; and it also takes in as many as sixty-five existing dialects in which versions have been produced merely for philological reasons. Making these deductions, the fact remains that at least some book of Holy Scripture has now been published, with a religious or missionary purpose, in quite 600 distinct forms of human speech.

Try for a moment to realize the significance of such figures. The Gospel speaks to the world already in ten times as many versions as can be claimed for any masterpiece of human literature, and the disproportion goes on increasing year by year. One other book does indeed pass that ratio. The versions of the *Pilgrim's Progress* number more than ten per cent. of the versions of the Gospel, though they do not reach twenty per cent. But, as Prof. Moulton puts it, "the *Pilgrim's Progress* will not disturb any inferences we may draw from the primacy of the Gospel among books which exercise a universal sway over the mind of the world, primitive and civilized alike." These manifold and multiplied versions of Scripture contribute a new and impressive chapter to the ever-growing volume of Christian evidences. God's Book has conquered and subdued the Babel of human speech; already it lies open, more or less completely, in languages that are current among fully seven-tenths of mankind.

Moreover we note that at the beginning of the nineteenth century, the Scriptures had been published in translations understood by only about two-tenths of mankind. Since then, the Scriptures have appeared in new versions which appeal for the first time to half the human family. Thus, in the history of the Bible during the last hundred years two outstanding phenomena confront each other: the age of fierce and remorseless criticism has been also the age of unparalleled translation and propagation.

The fact that according to God's will Holy Scripture speaks to the world in translated forms, carries various implications. It shows, at any rate, that the divine and essential quality of the Bible—that which makes it to be "the Bible" and not an ordinary human book—must be something which does not

evaporate in translation. We know that, in the past, extravagant theories have sometimes been held as to the verbal inerrancy of the Scriptures. There was, for example, the claim put forth by certain Swiss reformers in the *Formula Consensus Helvetici* of 1675, which declared the vowel points and accents of the Hebrew text to be inspired by God. Orthodox Moslems hold the absolute verbal infallibility of the Koran, and feel bound, therefore, to discourage any translation of their sacred book, which must be read in its original Arabic. It was for similar reasons that the rabbis of Palestine, who worshipped the letter of their Hebrew Testament, regarded the Septuagint version as a national disaster. They called the date on which it was begun "the fast of darkness," and compared it to the day on which the golden calf had been made. Yet we know how the Septuagint, whatever its defects, proved the first great missionary version of Scripture, and became, in God's providence, one chief preparation for the spread of the Gospel.

This whole subject of translation has a real bearing on the problem of inspiration. It suggests to us, as De Quincey has said, that "the great ideas of the Bible protect themselves. The heavenly truths of God's Word, by their own imperishableness, defeat the mortality of languages with which for a moment they are associated. The truth of revelation is endowed with a self-conservative and self-restorative virtue; it needs not to be protected verbally by successive miracles; it is self-protecting." The Word of God in the Bible is not of a nature to be affected by verbal changes such as can be made by time or accident. "It is like lightning, which could not be mutilated, or truncated, or polluted." May we not say, further, that God's revelation resides, not in any selected chapters, or texts, or phrases, but in the total content and purport of the Bible, supplemented and corrected by itself?

From the history of the versions of Holy Scripture another conclusion of grave practical import emerges. The world-wide experience of missionaries confirms the weighty dictum which Bishop Steere, of the U.M.C.A., wrote from Zanzibar—"Our work must be all unsound without a vernacular Bible"; but it also proves that, for the Christian Church in any country, nothing is more vitally necessary to preserve its purity, nay, to secure its permanence, than the Scriptures in the language of the people. There are few more tragic chapters in ecclesiastical history than that which records how Islam was able to conquer North Africa, so that those coast-lands are now dominated by the Crescent which once paid homage to the Cross. How can

we explain the mournful fact that the Church of Tertullian and Cyprian and Augustine vanished, and the whole broad belt between Port Said and the Atlantic became, and has remained, almost entirely Moslem? Doubtless, Christianity in North Africa had departed far from the purity and simplicity of the New Testament. But Archbishop Benson suggested another secret root of the Church's failure to stand fast against the Moslem flood: it had neglected to translate the Scriptures into the languages of its common people. The Latin Bible existed, indeed, but no early versions were made into those Punic and Numidian dialects which were the mother-tongues of the North African races. On the other hand, there were ancient Coptic versions of Scripture; and so the Coptic Church survives in Egypt—a remnant, but still alive after so many centuries of Moslem persecution and oppression. And there was an ancient Ethiopic version; and so the Abyssinian Church still survives, degraded with superstitions, yet not perished altogether. Looking further afield, we trace this same factor in the persistence of other ancient Churches—such as the Syrian, the Armenian, and the Georgian. In comparatively recent times, the infant mission Church in Madagascar endured a quarter of a century of ruthless persecution. But before the L.M.S. missionaries were driven out of that island they had printed and distributed the Malagasy Bible. The books passed stealthily from hand to hand, and were read in secret, at the peril of their owners' lives; yet they kept the sacred fire burning, and when the missionaries could return, twenty-five years later, they found that the little band of Malagasy Christians had grown from 200 to over 2,000. We are tempted to believe that if the early Roman missionaries in China and Japan had popularized the Scriptures among the converts whom they baptized, their work might have proved less destructible. Perhaps there is no example of a nation, once Christian, having ever abandoned the faith, so long as its people have possessed the New Testament in the vulgar tongue.

Another problem of curious interest finds illustration from versions of the Scriptures. People sometimes ask: Are all parts of the Bible of equal value? Which books are the most important? Well, let us consider the experience of missionary translators, who may be trusted to understand what parts of Scripture are most necessary and useful for their converts. Almost without exception, missionaries begin their translation-work by making a version of a single Gospel—generally selecting St. Mark's Gospel, as the shortest and simplest. Then they go

on to translate the other Gospels; probably they next take in hand either the Acts of the Apostles, as illustrating the growth of infant Christian communities, or the Psalter, as the hymn-book of the Universal Church. Before the New Testament has been completed they will often translate the book of Genesis, as the prologue to sacred history. It is curious to note how often the earliest of the prophets which missionaries translate is Jonah—doubtless because Jonah is the most missionary book in the Old Testament. The experience of Bible translators shows, further, that the first version of the New Testament is nearly always revised before a version of the Old Testament has been completed. Indeed, the vernacular New Testament appears to suffice for the ordinary needs of a native Christian community, until the time comes when converts are sufficiently advanced to be trained for ordination; it is for their training that a version of the Old Testament becomes urgent.

In the preface to the second edition of his famous English version of *Plato's Dialogues*, the late Master of Balliol laid down certain canons which must govern every successful translator: "His object is not merely to render the words of one language into the words of another, but to produce an impression similar, or nearly similar, to that of the original on the mind of the reader." . . . "The excellence of a translation will consist not merely in the faithful rendering of words, or in the composition of a sentence only, or yet of a single paragraph, but in the colour and style of the whole." . . . "The metaphors admissible in different languages vary, and the translator will often be compelled to substitute one for another." . . . "The freest and the most literal rendering are not necessarily opposed; but the two principles can only be harmonized by a series of corrections." . . . "The result should read as an original work, and should also be the most faithful transcript which can be made of the language from which the translation is taken."

Such is the high and difficult ideal for the translator of the Bible. Not all have attained to it; there have even been crude and careless and defective versions of Scripture. Some translators have assumed that good intentions can compensate for slovenliness or ignorance. Some translators have not been ashamed to exhibit strong theological or ecclesiastical bias: I need only mention such partisan versions as the Polish Bible, known as the "Socinian Bible," published in 1563—and the notorious French Testaments printed at Bordeaux in 1661–3

and 1686. In this last, *e.g.*, we read in Acts xiii, 2: “*Or comme ils offroient au Seigneur le Sacrifice de la Messe.*”\*

Moreover, from the nature of the case, the first attempt to render the Scriptures into a fresh language must always be tentative and imperfect. No Bible translation emerges from the translator's brain, as Athenè was fabled to have sprung, full-panoplied, from the head of Zeus. The Bible learns to utter God's thoughts in a new tongue as a child learns to talk. First in broken words, which gradually gain shape and distinctness; then in sentences, which, though disjointed at first, grow more and more closely connected, till ultimately the child's words become a more or less complete vehicle of his ideas. Behind the finished Book lie its earlier sections, the New Testament or the Psalter or one or two Gospels; behind these, again, lie the first attempts at the Lord's Prayer and a few scattered texts. Arduous preliminary labour is often necessary. About 200 languages have been reduced to written form and provided for the first time with an alphabet and a grammar, simply that they might become channels for the Gospel.

Such was the life-history of the Bible prepared in New England by the earliest Protestant missionary, John Eliot, one of the Pilgrim Fathers. He began to study the language of the Massachusetts Indians, about the year 1643, with the help of an Indian who had been captured in war. Soon the infant Massachusetts Bible began to learn its new lesson, and growing day by day, it stood forth twenty years later in complete manhood. At the end of his Indian Grammar, Eliot lifts the veil from its history and tells us a little of what it cost. He writes: “I have now finished what I shall do at present: And in a word or two to satisfie the prudent Enquirer how I found out these new wayes of Grammar, which no other Learned Language (so far as I know) useth; I thus inform him: God first put into my heart a compassion over their poor Souls, and a desire to teach them to know Christ, and to bring them into his Kingdome. Then presently I found out (by Gods wise providence) a pregnant witted young man, who had been a Servant in an English house, who pretty well understood our Language, better than he could speak it, and well understood his own Language, and hath a clear pronunciation: Him I made my interpreter. By his help I translated the Commandments, the Lord's Prayer, and

---

\* It must in justice be added that these Testaments were afterwards repudiated by the ecclesiastical authorities.

many Texts of Scripture : also I compiled both Exhortations and Prayers by his help. I diligently marked the difference of their Grammar from ours : When I found the way of them, I would pursue a word, a Noun, a Verb, through all variations I could think of. And thus I came at it. We must not sit still, and look for Miracles : Up, and be doing, and the Lord will be with thee. *Prayer and Pains, through Faith in Jesus Christ, will do any thing.*"

John Eliot's experience has been reproduced in the lives of multitudes of scholars, whose prayers and pains, joined with their faith, have moved away mountains of difficulty and opened out a way for the voice of God to hearts hitherto unconscious of His tones. Let us pay homage to the heroic drudgery of the noble army of translators who have toiled with endless patience to give men God's message in their mother tongue.

All great books must in some degree suffer when they are made to speak in what is not their native language. Even the best translation can be no better than the copy of a picture or the cast of a statue. When we take, for example, the master-pieces of human literature—the *Iliad* or the *Divina Commedia*, or *Paradise Lost*, or *Faust*, or *Macbeth*—and compare them with their finest versions in a foreign tongue, we begin to realize how much has been lost. The translation of an original poem is like the wrong side of a piece of tapestry—the sharp outlines vanish, the clear, bright colours are blurred. For a poet's thought and language must needs be so fused together that it is half fatal to divorce his ideas from his diction. Indeed, the most perfect pieces of literature are the least capable of adequate translation.

The Bible, however, comes to us, not as perfect literature, but as essentially the medium and vehicle of God's revelation. And the Bible has this unique quality that it may be translated into all the languages of mankind without sensibly losing its majesty and tenderness and spiritual power. The Scriptures as a whole can be rendered with but little sacrifice of their energy and their beauty. Into whatever barbarous tongue you translate the New Testament, it seems to fit that tongue as though it had been made for it : it *was* made for it ! In every version the Book retains its power to pierce the thoughts of the heart ; it still remains sharper than a two-edged sword ; it still divides joint and marrow. It does its supreme work—compared with which nothing else matters.

In his recent volume on *The Bible*, Professor Peake points out that "we may reverently and thankfully recognize that even the

choice of the languages of revelation was not left uncared for by the providence of God." It is no small thing that Hebrew, the mother-tongue of Israel—unlike Chinese or Accadian—was a language with an alphabet. Moreover, the Hebrew language by virtue of its simplicity and directness is unusually easy to translate. Bishop Oluwole, speaking of his own West African tongue, has said : "Yoruba is a language into which the Bible phraseology goes easily. We find it very convenient to translate direct from Hebrew, more so than from English." On the other hand, we may recall Luther's exclamation : "Good God, how hard it is to make these Hebrew prophets speak German."

Again, it is not without significance that the Apostles and Evangelists wrote in Greek, which came nearest to a universal language in the ancient world. Moreover, they did not write in classical Greek. Of recent discoveries about the Bible none is more striking than the testimony as to the language of the New Testament which has been unearthed during the last few years out of rubbish heaps of waste paper and broken pottery buried in the sands of Egypt and dating back to the very beginning of the Christian era. What this new linguistic evidence demonstrates may be stated in the words of the distinguished scholar who has done so much to make it available in English : "The conclusion is that 'Biblical' Greek was simply the vernacular of daily life. . . . The Holy Ghost spoke absolutely in the language of the people, as we might surely have expected He would." That is to say, the New Testament was composed in the common homely speech of those who first read its pages ; it was written literally in the vulgar tongue.

The astonishing translatable ness of Scripture has been explained on various grounds. Some point to the character of its metaphors, the frequent parallelism of its construction, the homely force of its images from common objects. Others emphasize the sublime and pathetic ideas which mingle with its contents. But the real secret lies in the subject-matter of the Bible itself.

With the true classics of the world there is no respect of persons ; they are concerned with those things which are common, with matters of enduring and universal interest which come home to everyone alike. Now we have one Book, and only one, which embraces all the heights and depths of human nature. The Bible belongs to those elemental things—like the sky and the wind and the sea, like bread and wine, like the kisses of little children and tears shed beside the grave—which

can never grow stale or obsolete or out of date, because they are the common heritage of mankind. This Book goes down to the root of our bitterest needs, our darkest sorrows. It speaks with accents that are not of this world about the only things which really matter at last to each human creature. Now the things common to all men are far more important than the things peculiar to some men. And the Bible can speak in every language and come home to every race, because it is as catholic as the blood in men's veins and the milk in women's breasts.

This is not the place to dwell upon the immense and inherent difficulties of rendering the Scriptures into the poverty-stricken speech of a barbarous people. In the language of New Britain, for instance, no verb could be found meaning to "forgive." In the Ibo language, current among three millions of tribesmen in Southern Nigeria, Archdeacon Dennis tells us that the same word has to do for "right" and "might," that "servant" and "slave" are synonymous, that "friendship" and "fornication" are scarcely distinguishable, and that "conscience" has to be transliterated. Such examples might be multiplied to almost any extent. They remind us that after all the crucial difficulty in translating the Bible is ethical rather than linguistic. Sir George Grierson, who is the first living authority on Indian languages, has described a tribe in Eastern India whose only idea of a feast was to get intoxicated on their native beer, and whose only word for festival meant literally "much beer drinking." In rendering into their speech the parable of the Prodigal Son, he was put to great perplexity, merely because he could find no word to express the rejoicing on the Prodigal's return, which did not also suggest the idea of intoxication. The fact is that not only the heathen, but the speech of the heathen, must be converted. Their very language needs to be born anew. Their words and phrases must be redeemed from foul uses and baptized into a Christian sense in order to be able to convey the ideas of the Gospel.

Nevertheless experience proves in a wonderful way how even crude and imperfect and tentative versions of Scripture can accomplish spiritual results which bear witness to a power which is not of this world. Take one of the most recent cases. Last year the Rev. Copland King, of the Anglican New Guinea Mission, wrote to me describing how he had rendered St. Luke into Binandere for a tribe in Papua. By that tribe the seat of emotion is considered to be the throat, not the heart. Hence "bad throat" means sorrow, a "throaty" man is a wise man, and to "take the throat" means to love. In St. Luke vii, 45,

"Thou gavest me no kiss" had to be translated "Thou didst not smell my nose." No word could be found meaning "forgive," which had to be translated by "forget" or "do not punish." Well, only a dozen years ago, the readers of this Gospel were using stone weapons and practising cannibalism. But last Christmas twelvemonth the Holy Communion was celebrated in the Binandere language for the first time.

Surely the spiritual potency of its versions in all languages and among all races, sets the New Testament immeasurably above every other book in the world. What is there to substitute for it? A dramatic preacher once pictured a missionary landing on some savage island in the Pacific, and addressing the cannibals who gathered round him in words like these: "Wipe your blood-stained lips, and listen while I read you this passage, which I have translated into your own tongue, from *The Light of Asia*."

The final evidence for the supernatural quality of the Bible lies in the moral and spiritual power with which it is speaking to-day in all the tongues of the world. God's living voice uttered in the Scriptures still comes home to men's consciences, and authenticates itself in their deepest experiences. On the title-page of an Italian pocket Testament printed at Lyons in 1551 we read: *Il Nuovo ed Eterno Testamento di Giesu Christo—The New and Eternal Testament of Jesus Christ.* This Book can never be called old, except in the sense in which time is old, while morning is always new. Its message is as mighty as ever to quicken human hearts and regenerate human characters; it moves among the nations with the power of an endless Life.

#### DISCUSSION.

The CHAIRMAN said there were two great mysteries—Babel and Bible. What was the nature of the confusion which took place at Babel? Was it that men lost their memories, or was there a disturbance of their tongues or of their thinking powers? There were about 2,000 languages now current in the world; how did they come into existence? In the New Hebrides, a dozen different languages sometimes existed in the same island. Probably the transliteration of the Bible began before any translation; a change of character probably took place in the time of Moses. In the book of Genesis, we found two ways of expressing the same thing; thus Laban and Jacob gave different things to their stone of

covenant. The Lecturer had used the word "Hebrew" throughout his paper, but nowadays some authorities, like Prof. Naville, spoke slightly of Hebrew. He wondered what the distinguished and industrious scholar, Dr. Driver, whom we have just lost, would say if he had been told that there was no such language as Hebrew ? What name could they substitute for it ? Aramaic would not serve ; must they adopt Canaanite ? A paper in the *Expositor* for January by Prof. Margoliouth, showed that the Gospel of St. Matthew had first been written in Hebrew, and then translated into Aramaic and finally into Greek.

He had himself been head of the Translation Department in the Bible House for ten years, and knew something of the immense difficulties which translators had to face. How, for instance, was it possible to give any idea of the Bible animals to the natives of a country where there was no animal larger than a flea ? In such a case the missionary would require to take about with him a travelling zoological garden, or at any rate a good picture book. In translating an English sentence into Chinese, it was necessary to turn the sentence upside down, especially if it conveyed an argument, for the Chinese method of reasoning is quite contrary to our own. But when the Chinese get the Bible in their own language they love it, and a Chinaman has been known to say, "The English Bible is very good, but if you want to know what the Bible really is, you must read it in Chinese." The italics in our Bible are a testimony to the difficulties of translation and to the fidelity of our translators, for they indicate passages where in order to convey the sense, it has been necessary to introduce words which are not in the original.

Mr. PHILLIPS stated that he had a brother who was a missionary in Rhodesia and that he was now sending home for printing the book of the prophet Jonah, which was the first portion of the Bible which he had translated into Walamba. It was necessary that those to whom they preached should have some understanding of sin before the Gospel was proclaimed to them. He further mentioned that the Superintendent of the London Missionary Society in Nyasaland refused baptism to those converts who could not read the New Testament, urging that they had had schools in that country for several years, and that for a convert not to be able to read it showed a lack of earnestness and zeal.

The Rev. F. C. LOVELY, B.A., thought that, as the previous speaker had mentioned the Walamba language, it might interest the meeting to know that the Book of Jonah, translated into the Walamba language, by Mr. W. A. Phillips, of Nyasaland, was at that time being carried through the Oxford University Press, by the Trinitarian Bible Society.

Mr. P. F. WOOD said he had very great pleasure in listening to Mr. Darlow's address ; it was interesting in its subject, charming in its phrasing, and would prove very useful. We were not astonished at its excellence as we are accustomed to get good things from the Bible House. Christian people needed to be educated to understand the need for translations and the difficulties experienced in making them so that the Christian Church might learn to pray for translators.

Mr. M. L. ROUSE said that the fact recalled by Mr. Darlow that the Bible of Jerome was from earliest times known as the Vulgate, *i.e.*, version made for the people, exemplified the principle which was believed in at its making, and long afterwards, that the Bible ought to be turned into the common language of those to whom its doctrines are preached. Yet that very version had in later centuries been made the instrument of exclusivism ; for the priests of the Church of Rome objected to any other being read : the people must not read the Word of God in their own language but only in Latin. A Roman Catholic priest had once told him that the Church had originally possessed an official Bible in Greek, which as regards the Old Testament, was a miraculous rendering from the Hebrew, but that Jerome thought it advisable to make a translation from the Hebrew into Latin, "because the Greek Septuagint did not give all the nice shades of meaning found in the Hebrew original ;" a strange thing to say of a version made correct by miracle ! Since then, the Latin Vulgate had been the official Bible of the Church ; to allow another to take its place would be grossly to mislead the readers. He admitted, however, that there were other vernacular versions made from the Hebrew Old Testament and Greek New Testament before Jerome's time ; such as the first Syriac, the Coptic, and the Gothic ; so that the principle had been recognized that it was a good thing to give the Bible to a people in their own language and he could not mention any Church Council as having examined into the matter, and decided against such translations. He also allowed that in preaching he

frequently made an unofficial translation of the Latin Vulgate by turning one or more of its verses into French. Surely it was better for the people to have a translation of the Holy Scriptures carefully made direct from the Hebrew and Greek by a number of the most learned and pious men in a nation, than to hear such fragmentary and unofficial translations as any chance parish priest might give.

Mr. MARTIN, who had had some experience of the difficulty of presenting Christian truth in the Chinese language, spoke of the problem which had faced translators in finding the right term for God, whether Shun = Spirit, or Shang-Ti = Supreme Ruler. The former term is indefinite, and the latter, although used in Chinese Classics, has become obscured by the canonisation of a man in the first century A.D., to whom was given the title "Shang-Ti." Either term must be explained or "converted" before conveying the required meaning.

Many words in the language need deepening; there is no word for "love," the nearest being "like." Therefore, to express "love," one of two words is added, "pain," or "dote," viz., "to painfully like" or "to dotingly like."

There is a lack of a word to express the Christian idea of sin, the nearest equivalent being "to offend"; to intensify this thought the words for "vile" or "evil" are added.

But experience puts new meaning into language, and during recent revivals in China the old words for sin and love have taken on deeper meanings to the Christians.

The Nestorian Church in China is an example of a Church without a Bible, which has perished, the sole memorial being the Nestorian Tablet, erected in A.D. 781 at Sianfu, in Shensi Province.

The Rev. J. SHARP expressed his gratitude to Mr. Darlow for his admirable paper. He would not criticize any part of it, but add a remark on one or two points. Mr. Darlow pointed out that the Greek of the New Testament was the vernacular of daily life; the familiar language of home. In Eastern lands there was usually a great difference between the literary language and the home language. In India, for instance, the educated classes, and the pundits, wished to have their translation of the Bible in the literary language; but they never used this themselves in their own homes, and the great mass of the people, and the very members of their own households, neither spoke it nor understood it. So the Bible Society was trying

to get simpler versions of the scriptures for India, and for North Africa. The allusion that had been made to the need for a missionary to carry a little "Zoo" about with him, in order to obtain vernacular names for animals mentioned in the Bible, recalled to him how some Indian natives had been taken to the zoological gardens in Calcutta and saw a cameleopard for the first time, and promptly named it the Long-Neck. People when they see an object will soon find a name for it.

John Eliot was not the first missionary to learn a North American-Indian language; the Spanish and French Jesuit, Franciscan, and Dominican missionaries were very industrious in this work; but so far as he could discover their translations of scriptures did not go beyond the Paternoster, the Ave Maria, and occasionally the Ten Commandments or the Beatitudes. This was a good beginning but they ought to have gone on to a Gospel—indeed to the whole New Testament. The point to be emphasized was, that in spite of all the difficulties attending translation, the Bible was the most translatable of books, and even imperfect translations of it were full of power to reach the heart and conscience.

Col. MACKINLAY and the CHAIRMAN expressed their gratitude to the author for a most valuable paper, in which the Meeting cordially joined.

The Rev. J. GOSSET-TANNER asked permission to add a single remark, namely, that in present-day Arabic they had a number of the very words which Moses himself was accustomed to use; for instance, the words for "right," "left," "foot," and so on, were those that appeared in the Pentateuch. And Arabic was now spoken by a hundred millions of men.

The Rev. E. SEELEY thought that it would be most helpful to translators if they had a Bible picture book of animals, objects and incidents, for which names and words so often seem to be lacking. The people to whom the pictures were shown would often supply names and words that might greatly help the translators.

The CHAIRMAN: That is a very good old plan. We find it in the second chapter of Genesis: "God brought the animals to Adam to see what he would call them, and whatsoever Adam called every living creature, that was the name thereof."

The LECTURER briefly returned thanks, and the Meeting adjourned at 6 p.m.

## 553RD ORDINARY GENERAL MEETING.

HELD (BY KIND PERMISSION) IN THE ROOMS OF THE  
ROYAL SOCIETY OF ARTS, ON TUESDAY, MARCH 24TH, 1914,  
AT 4.30 P.M.

THE VERY REVEREND H. WACE, D.D., DEAN OF CANTERBURY,  
PRESIDED AT THE OPENING OF THE MEETING, AND WAS  
SUCCEEDED IN THE CHAIR AT 4.50 P.M. BY PROF. D. S.  
MARGOLIOUTH, D.LITT., LAUDIAN PROFESSOR OF ARABIC.

The Minutes of the preceding Meeting were read and confirmed.

The SECRETARY announced the election of Miss NORAH URE MACKINLAY,  
PROF. D. S. MARGOLIOUTH, and Dr. F. LAYTON ORR as Associates of the  
Institute.

---

The VERY REVEREND THE DEAN OF CANTERBURY opened the proceedings by expressing the great regret which all present must feel for the cause which had prevented the Rev. C. H. W. Johns from giving his expected lecture on "Early Migrations of the Semitic Races." The CHAIRMAN went on to say :

That is a subject of very great importance on which Dr. Johns is one of our highest authorities, and I am sure you will wish your Secretary, Mr. Maunder, to convey to Dr. Johns on your behalf, your regret at the illness which has prevented him coming here on this occasion, and the hope that we shall be able to welcome him here at some later date.

I have no doubt that we owe it to the kind influence of our new Secretary, Mr. Maunder, that this vacancy has been filled by so interesting a subject, and by so competent a lecturer as Dr. Chapman, the Chief Assistant of the Royal Observatory, Greenwich, whom I have now the pleasure to introduce to you. There is perhaps no department of natural science which presents to us such interest, as that which deals with the vast astronomical facts which are being brought before us with ever increasing distinctness day by day. There is only one other subject of the same kind which can rival it in interest, and that is the astonishing minuteness of detail revealed to us by the microscope. What, by a legitimate metaphor, we may

call "the stars of the microscope" seem, according to what men of science tell us, to be as numerous and as wonderful as the stars of the heaven above. And it is yet more extraordinary that the very movements of the atoms are like those of the solar system. I will not further encroach upon the time of the Lecturer, who has so much to bring before our notice, but I will now ask Dr. Chapman to address us on "The Number of the Stars."

*THE NUMBER OF THE STARS.* By SYDNEY CHAPMAN,  
B.A., D.Sc., F.R.A.S., Chief Assistant at the Royal  
Observatory, Greenwich.

**T**HIE subject of my lecture is the Number of the Stars, a subject which I might almost say did not exist in ancient times, because it was then very generally believed that the stars *had* no number: they were innumerable, infinite in number. In the Bible, for example, we frequently find the number of the stars classed with the sands on the seashore, as an expression for a "multitude which no man can number." We shall see later on that this metaphor does but scant justice to the sands of the seashore, for the number of the stars is really very much smaller than that of the grains of sand.

As we look up to the sky on a clear night, we see a number of stars so great that probably no one in this room has ever thought of trying to count them. The number visible varies with the clearness of the sky and the keenness of the vision of the beholder, so that different observers on different nights and from different stations see different numbers of stars. But the stars visible, separately and discretely, to even the keenest sight and on the clearest night are not nearly so numerous as might be supposed: their number is very limited. But since the stars vary much in their apparent brightness, so that they range from the brightness of Sirius down to those so faint that they are just on the limit of our vision, it is reasonable to suppose that there are stars fainter still, which, if we had better eyesight, we might be able to observe. That indeed is the case; the stars which we can see with our unaided sight have traditionally been divided into classes according to their brightness, classes which are known technically as "magnitudes." Of these magnitudes, there are six for stars within the range of our unassisted sight. The stars of any one class or magnitude are not quite equal in brightness, some being brighter and

some fainter than the average brightness of the magnitude. Nevertheless the classification is quite a good working one, and scientific in its principle.

A star is visible to us by the light which we receive from it, and this is focussed by the lens of our eye upon the retina. The impression which the light makes on the retina depends upon the brightness of the beam and its diameter as it enters the eye. Now the pupil of the eye is not always of the same diameter; when we go into a dark place the pupil enlarges, so that more light can enter the eye; thus the amount of light of any given brightness that enters the eye may vary a little, and the impression which the light makes upon us depends upon the two conditions, of the quantity of light entering the eye and its brightness. Since, however, the pupil of the eye does not vary very much in diameter, we must resort to other means if we wish to perceive the light of stars that are intrinsically too faint to produce a sensible impression upon us. If we could enlarge the pupil of the eye indefinitely, stars fainter than the 6th magnitude would no doubt become visible. This is, of course, impossible in itself, but by means of the telescope, we can greatly increase the beam of light from the star which can be collected in the eye and focussed on the retina, so that the telescope enables much fainter stars to be seen than could possibly be viewed by the eye without such assistance.

Every increase in the size of telescopes hitherto has led to an increase in the number of stars rendered visible to us, but in spite of the great advances that have already been made in telescopic power, not even our largest telescope has sufficient light-gathering power to reveal to us half the number of the stars which undoubtedly exist.

Before dealing with the question of the relation between the size of the telescope and the faintness of the stars which we desire that it should reveal to us, it is necessary to say a few words as to the definition of stellar magnitudes, that classification of stars according to their brightness which has been already mentioned.

The light of two candles taken together is of course twice the amount given by one, and the excess of the light of the two over that of one corresponds to a definite difference in the brightness of the two. If now a third candle be added to the two, the increase in the *quantity* of light equals the increase in the light when a second is added to a single candle, but the increase in *brightness* is less in the former case than in the case

last mentioned, *i.e.*, the combined brightness of three candles is not greater than that of two in so high a proportion as the brightness of two candles is greater than that of one. To obtain the same *proportionate* increase in the brightness of the light, we must double the number of candles; we must add two to two, just as we added one to one; and if we wish to carry on the process, to obtain the same proportionate increase in brightness once again, we should have to add four additional candles to the existing four.

So it is with the stars; an average star of the 2nd magnitude gives less than half the light of an average first magnitude star; or, in general, two average stars of one magnitude are about equal in light to five average stars of the next. More precisely, a difference of five magnitudes in the light of a star, corresponds to a diminution of light in the ratio of 1 to 100; and a typical star of the 6th magnitude gives only one-hundredth the amount of light of a typical star of the 1st magnitude. In order, therefore, to bring fainter stars down to the 11th magnitude just within the range of visibility of a telescope, we must increase the beam of light entering the eye one hundred times; so that the telescope must have an object glass one hundred times the area of the pupil of the eye. In other words it must be between two and three inches in diameter. In order to reach to stars five magnitudes fainter still, that is to say to render visible stars of the 16th magnitude, the telescope must have an aperture of 28 inches in diameter. Upon this computation, the largest telescope in the world, which is five feet in diameter, will just show stars of between the 17th and 18th magnitude. This is the chief instrument of the Mount Wilson Observatory in California. A still larger telescope, now being built, which in its turn will be the largest telescope in the world, will have a diameter of 100 inches, but this will only enable stars to be seen about  $1\frac{1}{4}$  magnitudes fainter than those visible by means of the great five-foot telescope, now at Mount Wilson. For, when telescopes of dimensions like these are reached, a very great further increase in size is required to obtain only a very small increase in its penetrating power; an immense increase in the size of the instrument, in its cost, and in the difficulty of its manufacture and manipulation, enables the observer to go but a very little way further down the scale of faint stars.

But, in the investigation of faint stars, astronomers are fortunately not confined to those that they can *see*, even with the aid of a great telescope, because here photography comes to

Magnitude.	Number of Stars of each Magnitude.	Total Number of Stars to Magnitude $m$ .	Equivalent Light of Stars.	
			Equivalent Number of 1st Magnitude Stars.	Totals to Magnitude $m$ .
- 1·6	Sirius	1	11	11
- 0·9	Canopus	2	6	17
- 0·0	$\alpha$ Centauri	3	2	19
$m$	$m$			
0·0—1·0	8	11	14	33
1·0—2·0	27	38	17	50
2·0—3·0	73	111	18	68
3·0—4·0	189	300	19	87
4·0—5·0	650	950	26	113
5·0—6·0	2,200	3,150	35	148
6·0—7·0	6,660	9,810	42	190
7·0—8·0	22,550	32,360	56	246
8·0—9·0	65,000	97,400	65	311
9·0—10·0	174,000	272,000	69	380
10·0—11·0	426,000	698,000	68	448
11·0—12·0	961,000	1,660,000	60	508
12·0—13·0	2,020,000	3,680,000	51	559
13·0—14·0	3,960,000	7,640,000	40	599
14·0—15·0	7,820,000	15,460,000	31	630
15·0—16·0	14,040,000	29,500,000	22	652
16·0—17·0	25,400,000	54,900,000	16	668
17·0—18·0	38,400,000	93,300,000	10	678
18·0—19·0	54,600,000	148,000,000	6	684
19·0—20·0	76,000,000	224,000,000	3	687
All stars fainter than $20^m\cdot0$			3	690

their aid. The eye registers a momentary impression; the photographic plate registers a cumulative effect. The difference between the two can be illustrated by imagining that leaden bullets are being dropped upon a spring balance; if the scale pan is flat, each bullet, as it falls, just depresses the spring, and then rolls off immediately, and the scale pan rises again. If the bullets are falling in a continuous stream, the balance will show a constant small depression of the spring. This last condition is analogous to the impression of light on the eye, but if the scale pan is in the form of a cup, so that it collects and holds the bullets, instead of allowing them to roll off, then, as more and more bullets fall into it, the scale pan sinks lower and lower, and this offers us an analogy to the cumulative action of light on a photographic plate. If particles of dust were slowly falling on the scale pan of a spring balance, the balance would show no appreciable depression due to any one particle, but after a long time enough dust would collect to produce an evident and measurable depression. This example may illustrate how it is possible to photograph very faint stars with the telescope, because the photographic plate accumulates the effect of a constant stream of faint light, concentrated upon it by the lens, and after a long time enables the impression to be recorded of stars far too faint ever to be seen directly by eye with the same telescope; the telescope registers the effect of the light accumulated over a long period of time, while the eye can only register the impression of the moment. Thus the photographic plate can supply us with the images of stars one hundred times as faint as the faintest which can be seen directly by the eye with the same telescope; that is to say, photography adds five magnitudes to our power of detecting faint stars.

The above table gives the number of stars of each magnitude from the very brightest down to the 20th magnitude, those visible to the naked eye being grouped under magnitudes 1 to 6. There is some difference between the scale of magnitude for stars as registered on photographs from the scale adopted for observations made directly by the eye, in other words the visual and the photographic magnitude scales are not identical. The difference between the two scales does not, however, affect the general principle, but whereas there are 3,150 stars down to the 6th magnitude on the photographic magnitude scale, there are in actuality some 6,000 stars visible to the naked eye. This means that the limit for naked eye observations stands at about the magnitude  $6\frac{1}{2}$ . Of these 6,000 stars, of course only

one half can be seen at any one time, as only one hemisphere of the sky can be seen at any moment from a given station. Thus on the clearest night a person with good eyesight can only see distinctly some 3,000 stars. Of course he can see the Milky Way, which is composed of millions of very faint stars, but he cannot isolate their images or see the stars individually.

Down to the 9th magnitude, which is about the limit of visibility in a telescope of between two or three inches aperture, there are just about 100,000 stars, so that quite a small telescope enables us to see more than a dozen times as many stars as can be seen by the naked eye alone, a fact which indicates the tremendous increase in the power of vision which even a small telescope gives as compared with the naked eye. As the table is followed down to the fainter and yet fainter stars, by steps of one magnitude at a time, the number is seen to increase rapidly. Down to the 14th magnitude, the total amounts to over eight millions, or eighty times as many as were registered down to the 9th magnitude. The 14th magnitude is the limit chosen for the great International scheme for photographing the entire heavens in which this country, in conjunction with many others, has taken part, and for a large section of the heavens the stars have already been photographed on this plan, and partly catalogued.

The table shows that if still fainter stars are embraced, and the survey is extended to the 17th magnitude, the total number is increased to 55,000,000, and this is the limit adopted for a series of photographs taken by the enterprise of the late Mr. Franklin-Adams. This remarkable work owed its origin to a suggestion by the late Sir David Gill, pointing out the desirability of a photographic research into the structure of the Milky Way. Mr. Franklin-Adams subsequently extended the programme to embrace the photography of the entire sky. With this end in view, he obtained in 1898 from Messrs. Cooke and Sons a 6-inch photographic lens, designed by Mr. Dennis Taylor to give good definition over a large field. This lens was so successful that a larger one of similar type was ordered; it was delivered in 1903, and was of 10 inches aperture, and 45 inches focal length, giving good images over a field 15 degrees in diameter.

Mr. Franklin-Adams and his assistant Mr. Kennedy used this lens at the Cape Observatory in the years 1903 to 1904, and the southern sky was photographed with exposures of two hours for each plate. After his return to England, Mr. Franklin-Adams built an observatory adjoining his house at Mervel Hill,

near Godalming. During the years 1905 to 1909, the northern sky was photographed, the exposure being increased to 2 hours and 20 minutes for each plate, and experiments were made towards the enumeration and classification of the stars and to ascertain the best means of reproducing the charts on paper. In the course of this work, it was found that the northern plates were so superior to those taken at the Cape, that Mr. Franklin-Adams decided to repeat the southern series. Illness prevented him from undertaking this work himself, and in 1909, he presented his 10-inch object glass to the Transvaal (now the Union) Observatory, and arranged for his assistant, Mr. Mitchell, to go to Johannesburg in December of that year. The new series of plates was begun in April, 1910. Mr. Mitchell was unable to complete the whole of the southern plates, and after his return to England, the series was continued by Mr. Wood under the direction of Dr. Innes, the Director of the Union Observatory.

Failing health rendered it impossible for Mr. Franklin-Adams to complete the two projects that he had in mind: the publication of the photographs, and the statistical discussion of the number of stars of different magnitudes in different parts of the sky. It was arranged that the statistical discussion should be made at Greenwich, and the plates, 206 in number, and each about sixteen inches square were presented to the Royal Observatory.

During the last three or four years, sample counts have been taken of these 206 plates, on small areas uniformly distributed over them, and the number of stars in these areas have been carefully ascertained, the stars being classified according to their brightness. This has necessitated a great amount of very heavy work, into the details of which it is not necessary now to enter. The actual brightness of these stars compared on a uniform plan with other stars over each part of the sky has been determined, and in this way the number in the whole sky has been estimated from the sample counts. Counts have been made from 5,000 selected regions, and the number of stars in the whole sky estimated for each magnitude down to the 17th, the table given above being based upon the results of these counts. The total number of stars down to the 17th magnitude, approximately 55,000,000, is therefore derived from this process of sample counts on the 206 plates covering the entire heavens, which the enterprise of the late Mr. Franklin-Adams has provided.

A consideration of the table will show that, as we pass to

fainter and yet fainter stars, their number increases very much, and at a hasty glance it might almost seem that their number was really infinite, that they increase without end. But if the table be examined more critically, it will be seen that the total number of stars down to the 6th magnitude, is nearly four times that down to the 5th; but that the total number down to the 10th magnitude, is not quite three times that to the 9th; and the number to the 17th not even twice the number down to the 16th; so that though the number of stars down to any particular magnitude is always larger than the number down to the preceding magnitude, yet the ratio of the increase is continually diminishing. The number of stars of a given magnitude does not increase in so high a geometrical ratio for the fainter stars as for the brighter ones; and a mathematical examination of the actual numbers in the table shows that two conclusions can be drawn with regard to the whole number of stars, seen and unseen.

In the first place it appears from this examination that there is a total number of the stars; that is to say that the number of the stars is not infinite. As we go from the number of stars of any one given magnitude to the number of the next fainter magnitude, we are dealing with a series which does not tend to increase without limit: the ratio of increase continually diminishes, and therefore a point will be reached beyond which the actual number of stars of any particular magnitude will no longer be greater than the number of the preceding magnitude. The series becomes a "convergent" one, and the total number of stars must therefore approach a limit; in other words it is finite; an extremely large number as we shall see, but quite a finite one. The stars therefore vary in brightness from Sirius, the brightest star of which we know, down to the 17th magnitude, the limit for the Franklin-Adams photographs; and still fainter than any limit which at present we can possibly reach; indeed very much fainter. In fact there are possibly stars of almost all conceivable degrees of faintness, but their total number is limited, and this conclusion is enforced upon us, and generally accepted, on other grounds beside those indicated above.

In the second place, the series shown in the table and derived from these counts of the Franklin-Adams plates gives us an indication of the limit of magnitude to which we should have to penetrate to secure half the total number of stars. As we have seen, the plates themselves carry us down to the 17th magnitude with the images of some 55,000,000 of stars. This

is very far short of half the total number. To attain that limit, we should have to penetrate down six or seven magnitudes fainter still; *i.e.*, to the 23rd or 24th magnitude. It is probable that the great 5-foot telescope of the great Mount Wilson Observatory, which is at present the largest telescope in the world, could by photography, with very long exposures, just reach down to this limit; so that half the stars could now be registered if anyone wished to take the trouble to do it.

The calculations above referred to, lead to the conclusion that the total number of the stars is not less than 1,000,000,000, and that it cannot much exceed twice this amount, so that perhaps we are warranted in saying that it is probably less than 3,000,000,000.

It is interesting to notice that this is comparable with the population of the earth, which is estimated to be about 1,500,000,000. This is also about the number of spores which are produced by half-a-dozen mushrooms.

With these figures before us, we may proceed to enquire what and where are the stars. Omitting details and explanations, the facts that have been already ascertained may be summarized as follows:—

The stars are suns, generally similar to our own in structure, but at immensely great distances from us. The nearest star, so far as we know at present, is that known as Alpha Centauri, and is twenty million of million miles away. In the neighbourhood of the sun, that is to say, within distances not extravagantly greater than this, the stars are probably scattered with some fair approach to uniformity in space, but their brightness varies enormously from one star to another. We know of some stars that are actually one hundred times as bright as the sun, while there are others not nearly so bright, some giving indeed only one ten-thousandth part the light of our sun. On the whole the sun, as compared with other stars, is fairly high up in the scale of brightness.

It can be shown mathematically that if we take any mixture of stars of varying brightness, and repeat this mixture uniformly throughout space, that is to say, if we have throughout all space a uniform distribution of stars, not all of the same brightness but the same kind of mixture everywhere, then the total amount of light which these stars would give to us would not be finite but infinite; the heavens would be one complete blaze of light. And on that basis of a uniform mixture of stars of varying brightness, the relative rate of increase in the number of stars from magnitude to magnitude can be calculated, and it

is found that the number of faint stars would increase far more rapidly than they do in fact. From these two arguments, that such a distribution of stars would appear to be infinitely bright, and the actual excess of the rate of increase in the number of stars as calculated over that which is observed, it is clear either that the stars must be distributed so as to become less numerous as we proceed outwards from the sun, or else they must become intrinsically fainter. There is also a third possible explanation, that the light may be absorbed before it reaches us. Without ruling out this latter possibility of there being in space a certain amount of absorption of the light of the stars, it appears that the stars do get less numerous as we proceed outwards from the sun, at any rate in most directions. As the size of telescopes is increased or the time of exposure of photographs is lengthened, more and more faint stars are detected, but it is probable that a point has now already been reached at which a large proportion of the faintest stars revealed are not stars fainter by reason of their greater distance, but are stars intrinsically fainter than those previously detected and that they are mingled amongst them. We are thus led to a conception of the universe as being of limited extent, containing a great number of stars in the form of a huge oblate spheroid, encircled by that great stellar band which we term the Milky Way. This great stellar system is finite, and if we were to travel outwards from the sun, beyond a certain distance, the number of stars would be found to thin out, and finally we should come to a region where there were few stars or none at all.

The stars then are gathered together in a single great system, and much is already known about it. It is a system characterized in its motions (for the stars are moving), its composition (for that is largely known), and in its structure, by unity and order, not less than by its almost unending variety. All these combine to make the stellar universe the most magnificent object of contemplation in the whole range of material things.

The stars may be regarded from another point of view, from which, perhaps, they appear to lose that impressiveness which these large numbers give to them. Yet this is only at first sight, as will speedily appear. When we pass from the total number of the stars to the total amount of light which they give us, we pass from quantities that are impressive by their extreme vastness to quantities that are almost insignificant, for though the stars are so numerous, yet all their vast numbers combined together yield to us very little light indeed. Yet, if

we do not realize how faint the great majority of the stars are as they appear to us, we shall not understand how distant they must be, and how great must be that universe which can contain bodies really so vast and so intensely bright, and yet, on account of their distance, apparently so extremely faint.

The table given earlier showed how rapidly the number of faint stars increases, as we go from magnitude to magnitude in the order of decreasing brightness. Their greater faintness, combined with their enormously increased numbers, allows of two possibilities. Does the increase in number as we proceed from one magnitude to the next fainter make the total brightness of each fainter class of star increase, so that the number of stars between one magnitude and the next may be sufficient, in spite of the increased faintness of each star, for their total light to exceed the total light of the magnitude one higher up, or does it make it diminish? The table gives the answer to this question by showing the number of stars of the 1st magnitude which would give an equal amount of light with the stars of each successive fainter magnitude. Stars of the 1st magnitude are the brightest of those that we see by the unassisted sight, and of these a few are really considerably brighter than the average 1st magnitude star. The brightest star is Sirius, which gives eleven times as much light as a typical star of the 1st magnitude. Then comes Canopus, giving six times the light of a 1st magnitude star, and Alpha Centauri, our nearest neighbour in the stellar depths, which is equal to two 1st magnitude stars. Eight stars follow down to the typical 1st magnitude star which together are equal in light to fourteen stars of the 1st magnitude, twenty-seven stars between the 1st and 2nd magnitudes, give an amount of light equal to seventeen stars of the adopted standard, and seventy-three stars between the 2nd and 3rd magnitudes are equal to eighteen stars of the standard magnitude. As the table is followed downward, it will be seen that the equivalent light given by each succeeding magnitude increases till we reach the 10th magnitude, after which it begins to diminish. Thus some idea can be formed of the extreme faintness of these fainter stars. Two million stars between the 12th and 13th magnitudes only give light equal to fifty-one of the standard 1st magnitude, and as we pass to still fainter stars, twenty-five millions between the 16th and 17th magnitudes are only equal to sixteen standard stars.

Beyond the 17th magnitude, the numbers are not derived

directly from observation, but have been calculated from the numbers higher up, by a simple mathematical formula, and from this it appears that the stars between the 17th and 18th magnitudes would only give an amount of light equal to ten standard stars, and that the whole mass of stars fainter still would be barely equal to twelve of the 1st magnitude. Thus the total light of all stars, seen and unseen, would, it appears from this table, come to about that of 700 typical stars of the 1st magnitude. It has already been mentioned that half the stars are fainter than the 23rd or 24th magnitude, but their total light, though they number several hundred millions, does not equal the light of a single 1st magnitude star. Perhaps that single consideration gives as good an idea as we can possibly form of their almost unimaginable faintness.

But the table reveals another curious circumstance. The stars visible to the naked eye render to us only about one-fourth the total amount of starlight. If, therefore, all the stars that we can discern individually by our unassisted sight were blotted out, the total amount of starlight would only be diminished by one-quarter. The midnight sky would not be seriously less luminous than it is at present, though it is needless to say its beauty and interest would suffer woefully.

The light which the stars send to us can be measured in another way by comparing it with the light of the full moon. It is, of course, clear to everyone that when there is a full moon the night is much lighter than when there is no moon at all, and we are dependent simply upon the light of the stars. It has been calculated that the total light of all the stars is only one-hundredth that of the full moon. Or the total starlight may be compared to the light of an ordinary electric lamp of 16 candle-power placed at a distance of from 45 to 50 yards. Such a lamp would give us as much light as we receive from all these many millions of stars put together.

But the light of the stars does not reach us with the uninteresting homogeneity which characterizes the light from the ordinary electric lamp. The starlight is differentiated not only in direction and colour but in many other ways, and from these variations, as we learn to interpret them better, we shall gain more and more knowledge of the stellar universe. It is this tiny stream of light, though in its brightness it is only equal to that of an ordinary 16 candle-power lamp, placed at a distance of 45 yards, that has furnished us with all the knowledge of the heavenly bodies which we possess. It is to this that we owe the profound influence which astronomy has

exercised upon our ideas of the universe, of man's place in it, and of the almighty power of God.

#### DISCUSSION.

The CHAIRMAN (PROFESSOR D. S. MARGOLIOUTH) : Ladies and Gentlemen, it is my very pleasant duty to ask you to join with me in thanking the Lecturer for his exceedingly lucid and admirable discourse upon a subject which I am convinced is of the greatest interest to all of us. I am sure we all have to thank him, both for his lucidity and also for the beautiful slides with which he has illustrated his lecture. I have, myself, heard a great deal on the subject of the International Photographic Map of the Heavens, because Professor H. H. Turner, the Savilian Professor of Astronomy in Oxford, is a colleague of mine with whom I am much associated, and we in Oxford are very glad to get an opportunity of obtaining fresh information on this abstruse subject when he is lecturing upon it. . . . I do not wish to speak for anyone else in the audience, but for my own part, I can only say that a considerable number of the facts which Dr. Chapman has brought before us this afternoon, were new to me, and I now know a good deal more about the Number of the Stars and the light which we receive from them than I did when I entered this room. I feel sure that all here will join with me in thanking the Lecturer most heartily for his admirable discourse.

Mr. E. WALTER MAUNDER : I think Mr. Chairman, that we owe a very great debt, indeed a double debt, to Dr. Chapman for having come here this afternoon for, as you know, he is not down upon our published programme. The lecture we had expected to have this afternoon, was one which Dr. C. H. W. Johns had promised to give us on "Early Semitic Migrations," but just before the last meeting of the Institute, we received a letter from Dr. Johns saying that failure of health would prevent his fulfilling his engagement. In this great difficulty, I wondered to whom I could turn for help in order that this afternoon should be filled up, and as I knew that Dr. Chapman had just completed an important research upon the subject of the Number of the Stars, I turned to him. I felt when I approached him that it was hardly a fair request that I was making to ask him at such short notice to come and give us an address of so much importance. But he acceded to my request at once with the

greatest possible good grace and willingness, and I think we are very deeply indebted to him on this special account, seeing that he had so short a time to prepare the paper for us. We owe a further great indebtedness to him in that he has given us the very latest results of his own special work. It was only at the last meeting of the Royal Astronomical Society that Dr. Chapman read a paper on the Total Light of the Stars, a subject which he has included in the address to which we have just listened.

The work from which Dr. Chapman has derived the results which he has given us this afternoon has been an extremely toilsome one ; it has involved not only the counting of the star images in five thousand areas, carefully distributed over the heavens, but it has meant the creation of standards of stellar magnitude for each order of magnitude under examination, and the estimation of the magnitude of every star image examined. Our debt, therefore, to Dr. Chapman is exceedingly great, both for the self-sacrificing way in which he has come forward to supply our need, for the interest, the value and the freshness of the information which he has given us, and for the admirably clear way in which he has presented it.

THE ASTRONOMER ROYAL (Dr. F. W. DYSON) said that the last time he had had the pleasure of hearing an address in that hall it had been one given by the late Sir David Gill, who was, he believed, one of their Honorary Correspondents. He could not help thinking as he listened to Dr. Chapman's address how pleased Sir David would have been to hear of the progress that had been made, and was still being made, in this particular branch of astronomy, and he could imagine how delighted he would have been with the account which Dr. Chapman had just given of the results which had been obtained—largely from an enterprise which Sir David himself had originally inspired—in this interesting and difficult subject of the dimensions of the stellar universe. He thought that they were warranted in saying that there was on the whole a general agreement amongst astronomers that the universe of stars was bounded : it did not stretch out infinitely. They had now a definite idea as to the number and extent of the stars, and their knowledge concerning them was comparable with, but nothing like so accurate as, their knowledge of the solar system. Modern astronomers were largely concerned with the problem of finding out some analogy to the bright points of light that the stars present to us. The point of

view of astronomy is really a descriptive one ; astronomy is a descriptive science, and he supposed that that was very largely true of science in general. It gives no precise answer to the questions, " How does this come about ? " or " Why does it come ? " The answers that it gives are mainly to the question, " What does it resemble ? "

In thinking about the Number of the Stars, although that subject is so interesting in itself, it is almost as interesting to recollect how this knowledge has been acquired. It has been acquired by thought, but the thought itself has been supplemented in very curious fashions. It was certainly remarkable that had it not been that people had learnt to shape pieces of glass so as to make spectacles, and had then gradually developed this art of figuring glass until they formed the lenses of which Dr. Chapman has spoken, had it not been for the development of that art, our knowledge of the stars must have remained extremely limited. The telescope was a beautiful and wonderful instrument, simply on the ground that it magnified our faculties so much. The same remark applied to the microscope, and those electrical instruments by which whole series of phenomena had been discovered of which otherwise we should have known nothing at all. When they considered the heavens and the number and brightness of the stars themselves, he thought they would all feel still more impressively that as religious man had always looked with wonder and reverence on the skies, so that the more we learnt concerning them, the more that wonder and reverence was increased.

A MEMBER enquired how it was possible to find out the rate of movement of the stars by means of the spectroscope. Also what was, approximately, the centre of the stellar universe.

Capt. MCNEILE asked whether there were not many dark stars, and Mr. M. L. ROUSE asked how long it was since it was thought that the stars were suns.

The LECTURER in reply, said : The first question was as to our knowledge of the motions and of the constitution of the stars revealed to us by the spectroscope. I suppose that we all know, or have been told, that when a railway train is approaching us, and steam is being let off, so that its whistle is blowing, the note appears shriller than when it is going away from us. The sharp note as the train approaches is due to sound waves in the air, which travel with a certain definite speed. If the source of these waves is approaching us, we receive the waves more quickly than if the source were at

rest, and if the source is receding from us, we receive fewer waves in a given time. The sensation of shrillness is greater or less according to the greater or less rapidity with which the waves reach our ear. That is analogous to the behaviour of light. The eye is able to discriminate between the rays of light which come to us with different numbers of waves each second, and it discriminates between them by means of the colour sense. The spectroscope enables us to learn of what colours are the various rays of light which go to form a given beam, and by means of it we are able to measure the number of waves reaching us per second in the case of the different component waves. Certain stars, however, send us light, of which the number of waves reaching us per second varies from time to time, and this has been interpreted in the same way as the analogous phenomena of sound, as showing that the source of light is alternately approaching and receding—probably (certainly in some cases) due to the revolution of one star round another just as the earth revolves round the sun. As to the centre of the stellar universe, no one knows exactly where that is, because we do not know the bounds of the universe at all correctly. The centre, like the North Pole or the Equator of the earth, is probably not marked by any definite object, but it is generally considered that our solar system is near the centre of the universe. One reason for this conclusion is that the Milky Way, which appears to be a great band of stars encircling the universe, is seen by us nearly as a great circle in the sky, and is of approximately equal thickness in its different parts, so that we are apparently near the centre of the galaxy, and therefore, according to our ideas of the universe, we must be also near the centre of the latter.

A question was asked about dark stars. In one sense most of the stars of which I have been speaking, are dark stars ; that is to say, we never see them with the naked eye. But there are also stars which we have never been able to photograph, which are known only from their effect upon others. With regard to the stars being thought to be suns, it was about the middle of the last century, or perhaps a little earlier than that, that the distances of some stars were first measured. It then became, for the first time, possible to calculate from their distance, the brightness that they would have if they were as near us as the sun is, and consequently how they compared with the sun as to the actual amount of light which they radiated

The Meeting adjourned at 6.20.

554TH ORDINARY GENERAL MEETING,

HELD (BY KIND PERMISSION) IN THE ROOMS OF THE ROYAL SOCIETY OF ARTS, ON MONDAY, APRIL 6TH, 1914,

AT 4.30 P.M.

MR. DAVID HOWARD, V.P., TOOK THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

The SECRETARY announced that Mr. Martin H. F. Sutton and Mr. Charles Barnard Wigg had been elected Associates of the Institute.

The CHAIRMAN then called upon Mr. E. Walter Maunder to read his paper.

*THE FIRST CHAPTER OF GENESIS.* By E. WALTER MAUNDER, F.R.A.S., late Superintendent of the Solar Department, Royal Observatory, Greenwich.

OUR subject this afternoon is the First Chapter of Genesis.\*

I take it that all here are agreed upon two points :—

First :—We believe that God is.

Next :—We believe that He made the world ; that is the entire material universe.

There is a third proposition which we must also accept absolutely, if we are to discuss our chosen subject to any profit. That third proposition is :—God is Himself the Author of this chapter which tells us how He made the world.

I.—GENESIS I IS A REVELATION FROM GOD.

For there are only two possible sources for the chapter : God Himself, the Creator, Who knew the mode and order of creation, or man, who did not know, but imagined it.

It is manifest that the act of creation cannot have come under human observation ; it predated man, it escaped his experience entirely. Nor could he learn of it by tradition ; there was no

---

\* In the first chapter of Genesis I desire to include the first three verses of the second chapter, which in the division of the Bible have obviously been detached from their proper connection.

one to hand down any account of it to him. Nor could he infer it from any study of what we term the processes of nature. For the act of creation\* is not one of the processes of nature: it preceded them all as assuredly as it preceded man himself.

So tradition, history, science are all helpless to give man any knowledge as to the act of creation. All our knowledge of nature and of the processes of nature, arises out of, and is based upon, our observation of nature. If this first chapter of Genesis is the invention of some man, or of some school or succession of men, or the outcome, it may be, of the speculations and inventions of many men, slowly developing through long ages; if, in short, its origin is human, not Divine, then it is worthless. It supplies us with fiction only, not with fact; it preserves to us no testimony of any witness, no record of any observer; and it would not be worth your while to listen to me as I discuss it; it would not be worth my while to ask for your attention.

That which men can observe and experience and have recorded is of value to all whom the record reaches, but if the record rests upon no experience, upon no observation, if it deals with facts that lie outside all human experience and observation, and is built up merely of suppositions, then it has no value: it is the baseless fabric of a dream. This first chapter of Genesis is only valuable if it comes to us from knowledge.

We are thus brought face to face with the fundamental question of the actuality of Revelation, for whatever may have been the process by which this first chapter of Genesis was given to man, the chapter is either a revelation which came from God, or it tells us nothing. If we are reasonable, truth-loving men, we must reject it altogether, as void of worth and significance, unless we accept it as a revelation given by God Himself to man: a "primitive revelation" in the most precise sense of the term.

## II.—GENESIS I IS A REVELATION OF THE CREATOR RATHER THAN OF THE THINGS CREATED.

Most men are content to accept the universe just as they find it, without enquiry as to how it came into existence or speculation as to its beginning. But there are also those in

---

\* We use the word "creation" in two connected but distinguishable senses: to designate either the act of creation or the totality of things created. I purpose to use it in this paper only in the first sense, and to employ the terms "nature" or "the creature" to express the second.

whom the sight of the order and beauty of the universe raises deep thoughts and questions. "Whence and how did this mighty frame of things arise? What was its beginning?"

The Beginning. Had the universe a beginning? Some have thought not. It is now, it was yesterday; why not for yesterdays without end? May it not have existed always?

This is the doctrine of the eternity of matter, a doctrine that appears under several different forms and names. Pure Materialism recognizes matter as the only existence; Pantheism professes to recognize the existence of God, but only as inseparable from the material universe; Monism asserts their complete identity.

But most thinkers are clear that these are unintelligent ways of evading the very question which is raised by the presence of the visible universe. Why should matter have had no beginning? Human life, the highest product of the changes through which the universe has passed, certainly had a beginning; organic life in general had a beginning; why not the complete structure out of which they arose?

We may put back the beginning for millions of ages, and these we may multiply by millions again, but still thought enquires "What came first of all?" And even if we predicate the eternity of matter, we have silenced, but not answered, the question that is still insistent, "Whence came that eternal matter?"

Another attempt to answer the question "What was the beginning?" likewise evades the question without answering it. This attempt affirms that the universe is without beginning; not because it always existed, but because it never did so. The universe is declared to be "the great illusion"; we have indeed a conception of it, but outside that conception it does not exist; the conception has no correspondence in reality. Here again the ordinary experience of men leads them to reject this evasion, as it leads them to reject the evasion of materialism. If we reason at all about the ordinary experiences of life, we know well that we reason differently, and order our intellectual operations according to different rules from those adopted by the philosophers who assert, either that the universe has always existed, or that its present existence is a mere phantasm.

To most men who have thought on this subject, probably to all in this room, it seems self-evident both that the universe does exist, and that it had a beginning.

We desire then to know how the universe came into existence. Many who put this question desire, and indeed

expect, that the answer should be expressed in the terms of natural science. They have so ill-defined a conception of the character and scope of science that they suppose that the answer falls within its powers.

But science has its limitations as well as its powers. As an example of one of the sciences, and as type of all the rest, let us look at astronomy : the oldest, the widest, and the most advanced of all the physical sciences.

It began with the observation made by men that there were two great lights in the heavens above us ; the greater that gave light by day, the lesser that gave light by night, and there were the stars also. Then men noted that these two great lights, by their movements, furnished divisions and measures of time. Next came the observation that there was a correlation between the changes of vegetation on the earth, and certain apparent changes in the heavens ; in the path of the sun across the sky by day, and in the groups of stars visible by night. Later on, some of the stars were perceived to move freely amongst the rest, and, after long-continued watching, those movements, which at first had seemed irregular and lawless, were so completely reduced to system that the positions of these wandering stars could be predicted for times far in the future, and now the prediction of the movements of the heavenly bodies has become the pre-eminent example of man's achievements in exact science. Step by step men have proceeded from the first mere recognition that there were lights above us, to the knowledge of their distances, dimensions, weights, chemical constitution, and changes of surface and condition. Nay more ; the scrutiny of bodies removed from us by distances which it is not possible for us to realize, has taught us the existence of chemical elements before we have recognized them upon the earth, and has even instructed us concerning their molecular constitution.

But astronomy has its limitations : inevitable limitations that apply not to it only, but to all the sciences. It deals only with relations : its observations, its deductions, are only relative. The movements of the sun were noted, first, because they were movements relative to the earth ; the movements of the planets were relative to the stars, and so on ; of absolute motion we know nothing.

Now in every case, we ourselves, we men, furnish the primal relation. Astronomy—and every science—is in its origin, practice and expression, essentially anthropomorphic ; not because the heavenly bodies are themselves human, but because

man is the percipient. The original unit, in terms of which we measure the distance of the sun, is the average human pace, and in like manner our appreciation of the angular movement of a planet is derived from the muscular effort which it costs us to move the head, or turn round upon the heel. What in mathematics we speak of as "polar co-ordinates" were, in their origin, simply walking forward and turning round.

Further, the discoveries of science give us no final explanations; for, when an explanation is discovered for some mystery, the explanation itself consists in the bringing to light of something, perhaps of many things, that are themselves unexplained, and for the time inexplicable.

Again astronomy knows nothing of the ultimate. In its most modern form, it ranges from the interior structure of an atom to the farthest extremity of space which a telescope can pierce, and indeed, inferentially far beyond. But, however far we go in any direction, whether in time or space, the enquiry of science will still be, "What is beyond?" And, if it were possible to give the decisive answer "There is nothing beyond," then science would find that it had passed the limit of its powers; it would have no further ability to deal with the situation. In order that science may deal with an event, that event must have both an antecedent and a consequent; in whichever direction we follow the chain of reasoning, science can never bring us either to "the first thing," or to "the last thing;" it has no protology and no eschatology.

The progress of science has been marvellous, and we may expect that its future will be much more wonderful than its past. But the very fact that it is progressive carries with it a necessary drawback. Science has no finality; we can never rest and be thankful that there is no more to learn. The hypotheses, which men accept to-day in science, may be rejected to-morrow, and will certainly be modified. It is with things that change that science concerns itself, and with their changes, and it is the changing thought of men concerning them.

From each and all of these considerations we see that the limitations of science preclude it from giving us any message on that which is avowedly the subject of the first chapter of Genesis—the Beginning.

And the first chapter of Genesis does not give us the message of science. One example is sufficient. Astronomy is the oldest of all the sciences, but there is not a hint of even its earliest discoveries, not a single astronomical technicality is introduced;

even the sun and moon are not named ; we are told nothing except what an intelligent child might perceive for himself ; namely, that there are in the heavens a greater light, a lesser light, and the stars also. There is nothing contrary to science told us, but neither is there any scientific revelation. Herein the chapter stands in striking contrast to all other accounts of Creation. These, without exception, either give us false and unscientific explanations of the heavenly bodies, or the results of long-continued scientific observation. Thus the Babylonian story mentions the planets, the poles of the heavens, and the artificial divisions of the ecliptic.

If Genesis I had been a revelation of Nature to man, that is to say, if it had given him instruction in natural science, it would have been worse than useless. The highest benefit which any science confers upon man is not the increase of his information, but the development, training and increase of his natural powers. Astronomy has been a utilitarian science from the beginning. From his observation of the heavenly bodies, man has learnt to divide, that is to measure, his time ; next, to find his direction over land or sea ; third, to determine his position, that is his longitude or latitude. But all these, though of high importance, form a very small part of astronomy to-day. From a directly utilitarian point of view, Ruskin's contemptuous remark that he did not care to know what gas Sirius smelt of, is justified ; but though it is no service to us to have found out that hydrogen exists in Sirius, yet the process of finding out, with its consequent development of observation and thought, has been of untold service. But if it had been revealed to us in the first chapter of Genesis that Sirius contains hydrogen, the statement would have been unintelligible until man had found it out for himself, and the revelation might well have retarded man's mental development, and delayed the discovery.

The Rev. T. H. Darlow told us in his paper, read on March 2nd, "On the Character of the Bible," that "the Bible is not such a book as man would have made if he could, or could have made if he would." The accounts of Creation which have come down to us well illustrate the truth of this statement, for all of them,—except that of Genesis,—whether they proceed from savage or from cultured nations, attempt to explain the origin of the universe by supposing it to have been built up out of similar materials. Thus, in the Babylonian story, Marduk builds the heavens and the earth from the body and bones of Tiamat and the sons of Bör, in the prose Edda, use the flesh and blood of Ymir, the frost giant, for the same purpose, so that the

heavens and earth are composed of substances which are assumed to be as material as themselves. Similarly, Haeckel and the school of which he is a representative, build the heavens and the earth from the primordial atom, but less logical than the pagans of old, they deny the existence of any person or force outside the universe thus self-constructed.

It is not possible to explain in terms of itself that which needs explanation. But the answer of the first chapter of Genesis is of another kind :—“ In the beginning, God.” Here the origin of the universe is found, not in itself, but elsewhere. It is true that, if God be also unknown, we learn nothing ; but, if God can be known, then His bringing the world into existence is no longer unexplained, though it may transcend our understanding. The method of His working may escape us, yet if we can know God Himself, we can learn something of His purpose, and therefore the significance of what He has wrought. The true explanation of created things is found in the Creator.

### III.—WE KNOW GOD BY REVELATION ONLY.

How can God be known ? The analogy of science may help us. That which men have learnt concerning sun, moon, and stars, they have learnt in one way and in one way only : it is from the sun, moon, and stars themselves that men have derived their knowledge of them ; the sole foundation of astronomy is Observation. As the science has developed, and become more complex, there has been division of labour ; and now some men are observers, others are computers, and others again subject the results of computation to further discussion and analysis ; but actual observation comes first and last and in between ; the whole structure of the science is built upon it.

So with the other sciences ; as geology, biology and the rest. We have learned of the rocks from the rocks ; of life from life. If we would learn of God, our knowledge of Him must come from Himself : there is no other source possible. Some scientific men have argued as if, since they have learnt of nature from nature, by observation of nature, and through their natural powers, they could also learn of God from nature, by observation of nature, and through their natural powers, without God having aught to do with their learning of Him.

Astronomers are sometimes asked, “ But can you photograph the stars ? ” The answer is “ Yes.” “ When do you do it ? ” “ At night.” “ But how can you possibly photograph them at

night, when it is dark? You must have a very powerful light in your observatory to take a photograph at night."

It is obvious what is the line of argument in the mind of such an inquirer. He knows that if he wishes for a photograph of himself, he must either go to the photographer by day when the light is bright, or if he goes at night, the photographer will be obliged to use an artificial light to illuminate him, and he supposes that the heavenly bodies need to be illuminated in just the same way.

It is not so. We photograph the sun by the light which proceeds from him, the moon by the light which proceeds from her (though that light is not inherent in her), and the stars by the light which proceeds from them: there is no need to try to add to their radiance by any light thrown upon them from an earthly source; indeed the one thing which the astronomical photographer is specially anxious to guard against is the entrance of any kind of terrestrial illumination. The heavenly luminary needs no earth-light to assist it: this can only "fog the plate," and dim or hide the impression that it is desired to secure.

So God is the only source of light concerning Himself. We know of Him that which He has told us; we can learn nothing more: He is our only possible source of knowledge in this field; it is only in His light that we can see light.

And if He gives us light concerning Himself, no matter by what method, then that light is Revelation. "No man has seen God at any time"; He is not perceptible to our senses; so that Observation, the source of our knowledge of material things, is not possible here. And speculation is worthless. It is quite true that not a few men believe that speculation is a source of knowledge with respect to external nature, and scientific men often receive accounts of "discoveries" which the ignorant have evolved out of their inner consciousness. The progress of science has been marked by the ruthless extermination of such "discoveries"; it has destroyed many; it will destroy more; it knows no toleration for anything of the kind. It is upon facts that have been definitely recognized, not upon unsubstantiated speculations, that the structure of science has been founded.

And what is true of science, is true also of theology. As we know nothing of nature from guesses, so we know nothing of God from guesses. Our knowledge of Him must rest upon established facts; that is to say it must come from Him alone. Our knowledge of Him must have been His gift to us, or we have no knowledge of Him at all.

Here then is the importance of the first chapter of Genesis.

It is no record of events that came within human experience : it is no inference from human speculation ; it is the word of God Himself to man ; what is the message which He desires us to hear ?

#### IV.—GENESIS I REVEALS SEVEN TRUTHS CONCERNING GOD.

There are seven great truths, which, I believe, are taught in this chapter :—

1. That God is.
2. That He Himself created all things.
3. That He created all things, not in one act, but in several.
4. That He made man in His own image.
5. That He gave man dominion over all the Earth.
6. That He rested from creation on the seventh day.
7. That He hallowed the seventh day.

The first two of these truths are, I believe, accepted by all in this room ; at least the Victoria Institute proclaims its “ faith in the existence of one Eternal God, Who in His Wisdom created all things very good.”

But it is worth noting how these truths are taught and the opposing errors condemned. Here it is that the third truth becomes of importance,—that God created all things, not in one act, but in several. There is no enunciation of a series of dogmatic propositions, positive or negative ; we are presented instead with the record of a succession of facts ; facts of “ history,” if we may extend the term “ history” to include events before the advent of man, events of which God Himself was the only Narrator.

But the bearing of these facts on theology and religion is of transcendent weight. Mankind has worshipped the objects of nature and the powers of nature, such as the broad expanse of sky, the solid earth and restless sea, trees and plants and the powers of vegetation, sun, moon and stars, and the varied forms of animal life, or the spiritual essences that are supposed to indwell them, but this polytheism receives its condemnation in the first chapter of Genesis. Here we are told that all these are not gods, but things ; “ creatures of His hand,” called into existence by the word of His power.

Not less definite is the condemnation of dualism ; the doctrine of two opposing principles in creation, one good, the other evil. There is but one God, and He has created all things very good.

Still more striking, if possible, is the condemnation of pantheism. We are often told that the progress of religion has been from fetishism to animism, thence to polytheism, and finally to monotheism. But this last step is not in the order of evolution ; the natural heir and successor of polytheism is not monotheism, but pantheism. Nature worship is still nature worship, even though the worshipper no longer discriminates between the deities of air and earth, of mountain and plain, but in order to satisfy an intellectual syncretism, prefers to integrate the whole.

Monism is a late form of pantheism ; like it, yet to be distinguished from it. Pantheism seeks to be philosophical, monism to be scientific ; with the result that pantheism is unscientific monism, and monism is unphilosophic pantheism, both being integrated forms of paganism ; the first from the more spiritual side, the second from the more material.

No such thought can be reconciled with the first chapter of Genesis. If God made light first, saw it and pronounced it good, and proceeded to make the firmament and so through a succession of distinct acts, the pantheistic or monistic position is impossible. God is Light, it is true, but light is not God : He transcends it.

The fourth truth revealed in this chapter is that God made man in His own image. Were it not for this, there could be no revelation of God to man. We have seen that man's science is essentially anthropomorphic, not because nature is human, but because man is the percipient. So man's knowledge of God is also necessarily anthropomorphic, not because God is human, but because man is the recipient of God's Revelation of Himself. Just as we arrive at some dim apprehension of the distance of the stars from knowing the length of our stride, so if man is to know God, there must be something in man that answers to God, and can therefore respond to Revelation, and lead man to an apprehension of what is in God.

The fifth truth is that God gave man dominion over all the earth. Here we have the charter of science : the right to that freedom of research which the man of science demands. Whether man exercises this dominion wisely and rightly or not, is not the question we are debating now ; suffice it to say that in nothing is man's dominion over the earth more clearly shown than in the progress which he has made in the various departments of science.

Sixthly, God rested from creation on the seventh day. The significance of this fact from the scientific point of view is

this:—From the time that man came, there has been no discontinuity in the natural order; no new energy has been introduced; no new order founded. Here we find the theological basis of that which is the primary assumption of science; the unbroken continuity of nature. Let it not be forgotten that this assumption of continuity, “which may be called the law of causality, cannot be proved but must be believed; in the same way as we believe the fundamental assumptions of religion with which it is closely and intimately connected.”\* But we must also remember that for science it is a necessary assumption; it is only within the limits of this assumption that scientific reasoning can take place.

Lastly, God sanctified the seventh day. The full significance of this expression is not brought out in Scripture until we meet it again as a quotation in the fourth of the “Ten Words” of Sinai; but from its context there, it is clear that the sanctification of the seventh day meant that man was differentiated from the lower animals. Six days only was he to labour for his food; the seventh day was not his, but God’s; a day on which he should worship God and enter into communion with Him.

These seven great truths present us with the true relations of man to God, his Creator, and to nature, his fellow-creature. Above man is God, the infinite and eternal Creator; below man is the great and glorious universe which God has called into being; between the two stands man; in himself, small, feeble and insignificant, but by virtue of God’s patent, conferred upon him, endowed with power to have communion with God, and dominion over nature,—to follow Religion, and develop Science.

To bring out these seven truths from the chapter before us is no triumph of forced and ingenious exegesis: they lie upon its surface, plain to every man. If the chapter be read to a child or to an unlearned peasant of ordinary intelligence, both would draw from it the same conclusions that I have done; indeed in almost every case I have used the very words of the chapter itself. And these seven truths are fundamental: the teachings of this chapter are necessary, necessary for all men. They furnish the great safeguard against idolatry and polytheism and all the unspeakable degradations of body, mind and spirit to which these lead. This chapter declares to man from the

---

\* T. N. Thiele, Director of the Copenhagen Observatory, *Theory of Observations*, p. 1, published by Charles and Edwin Layton, 56, Farringdon Street, London, 1903.

outset his true position in the universe, and enables him to take his first step in the knowledge of God, which is Religion, and his first step in the knowledge of nature, which is Science.\*

#### V.—“ GOD SAID.”

The basis of all the science of to-day is found in the principle of continuity ; the principle that like causes produce like effects, or, to use less debateable terms, that like antecedents are followed by like consequents, and that the phenomena perceived to-day follow necessarily and continuously from the phenomena of yesterday.

The first chapter of Genesis is not concerned with such continuity. Six times it is recorded “And God said”; and in answer to that Word, a change in the condition of nature followed immediately. Two different words are used in connection with that change,—“God created,” and “God made”—and some commentators have laid great stress upon the distinction between these two terms. It lies outside my province and present purpose to debate this distinction. In one thing they agree: they indicate a change in the course of nature, which, but for the command of God, would not have taken place. If the word had never gone forth, “Let there be light,” then the darkness that was on the face of the deep would never have been dispelled. The creation of light on the first day was good and complete in itself, but contained no germ or potentiality of the creation of the second day. The command “Let there be a firmament” was as necessary in its turn as the command “Let there be light” had been before it; but again the condition produced had no germ or potency of the creation of the third day. So in like manner if the command of the third day “Let the waters under the heaven be gathered together into one place and let the dry land appear,” had not been issued, our continents and islands would never have risen above the waters to bring forth grass, herb, and tree.

So with the remaining days. The meaning of the chapter is missed if the work of the sixth day is regarded as the necessary

---

\* There is a misleading phrase—“The Conflict between Religion and Science”—which, unfortunately has become almost proverbial. But because it is so familiar I wish, throughout this paper, to use the two terms, Religion and Science, in the senses in which they occur in this phrase, Religion as meaning that knowledge of God which is founded on Revelation, and Science that knowledge of Nature which is founded on Observation.

evolution and development of the fifth, and that of the fifth day, as arising in like manner continuously from that of the fourth, and so backward from the beginning. The fiat of the Almighty, repeated six times over, implies the introduction of a new principle on each occasion, and the commencement of a new continuity, which held from that time forward and raised the Creature in each case to a higher plane. We often speak of Creation as a single act, and there is a sense in which that holds good. But this first chapter of Genesis declares the truth that God accomplished Creation, not in a single act, but in several; —there were several creations.

This was not because the first creation broke down or was a failure. The creation of the first day was good and complete in itself; it has never been superseded; light is with us to-day in all its beauty and worth; it was created good, it remains good. And so with the other creations, each in their turn.

But because these separate fiats were creations, they escape the research of science. Science deals only with relations, the relations between created things; it can only consider secondary causes, and it is limited by the continuity of their operation. That which precedes the continuity of nature is creation; that which follows creation is continuity. Hence the two terms are mutually exclusive; any event or phenomenon that falls within the range of continuity is not creation, and the act of creation is no incident of continuity.

In considering most of the discussions that have been held over this chapter, discussions which have had for their purpose to ascertain the bearing of science upon it, whether to confirm or to contradict its record, it will, I think, be recognized that generally the real question raised has been whether the order of events as given in Genesis is the same as the order of development as suggested by evolution.

Surely this is a fundamental mistake. We must believe that if God had thought fit, He could have spoken the word "Let the world be" and it would have straightway followed that "the world was"; and it would have been potentially, if not in outward form and appearance, all that we behold of it to-day. This is, in effect, the assumption made by both the contending schools,—equally by those who hold that the course of evolution confirms the narrative in Genesis, as by those who claim that it is contradicted thereby. It was not once only, but six times, that God spake and it was done; and that statement implies not six stages in a single continuous evolution, but six distinct exertions of creative power.

## VI.—“IN SIX DAYS THE LORD MADE HEAVEN AND EARTH.”

What was the nature of these days of creation? What was their length? And where are we to place them in the course of time? Many different opinions have been formed upon these questions, which may be summarized as follows:—

- (a) “At one time the chapter was interpreted to mean that the entire universe was called into existence about 6,000 years ago in six days of 24 hours each.
- (b) “Later it was recognized that both geology and astronomy seemed to indicate the existence of matter for untold millions of years instead of some 6,000. It was then pointed out that, so far as the narrative was concerned, there might have been a period of almost unlimited duration between its first verse and its third; and it was suggested that the six days of Creation were six days of 24 hours each, in which, after some great cataclysm, 6,000 years ago, the face of the earth was renewed and replenished for the habitation of man, the preceding geological ages being left entirely unnoticed.
- (c) “Some writers have confined the cataclysm and renewal to a small portion of the earth’s surface—to ‘Eden’ and its neighbourhood.
- (d) “Other commentators have laid stress on the truth revealed in Scripture that ‘one day is with the Lord as a thousand years, and a thousand years as one day,’ and have urged the argument that the six days of Creation were really vast periods of time, during which the earth’s geological changes and the evolution of its varied forms of life were running their course.
- (e) “Others again have urged that the six days of Creation were six literal days, but instead of being consecutive, were separated by long ages.
- (f) “And yet, again, as no man was present during the Creation period, it has been suggested that the Divine revelation of it was given to Moses or some other inspired prophet in six successive visions or dreams, which constituted the ‘six days’ in which the chief facts of Creation were set forth.” (*Astronomy of the Bible*, pp. 20–21.)

It does not lie within my province to discuss the bearing upon these interpretations of the meaning of the Hebrew word

*yōm*, here translated "day"—that is for Oriental scholars. But the question appeals to me as an astronomer from a different point of view, one that has received little or no consideration. An astronomical day, or rather let us put it, "a day of man," involves four things :—(1) an earth that has obtained definite form ; that (2) has begun to turn on its axis ; (3) a sun that shines ; and (4) a man upon the earth to see. In order that "evening" and "morning" may indicate definite points of time, a fifth condition is necessary :—a selected locality upon the turning earth, from which the sun may be seen to set and to rise.

The chapter before us gives us no hint that, at the moment when the word of command of the first day was spoken, the earth had received any definite form. There is no hint of its rotation, nor of any choice of a special locality. It was not until the fourth day that the sun was set in the firmament to give light upon the earth ; nor until the sixth day that there was a man to perceive the succession of evenings and mornings. Surely then the seven days of Creation are not seven days of man, but seven days of God. But this must give them a stronger, not a weaker, claim to be rightly called days. If God regards them as days, then days they were in the fullest sense ; no matter how difficult, nay perhaps impossible, it may be for us to define them in our vernacular. Yet, since man was made in the image of God, it may well be that the days of man are faint types or images of the days of God ; the six days of man's labour, of God's six days of creative work ; the seventh day of man's rest, of the day which God blessed and sanctified.

#### VII.—“THE EVENING AND THE MORNING.”

But if it is impossible for us to define the days of God in the terms of our human experience of time, is it impossible that God should translate them for us ? We find that the record of each day's work is concluded by the same formula—"and there was evening, and there was morning." This expression is both unusual and striking, particularly in the case of the first day "And there was evening and there was morning, day one."

The suggestion to my own mind is that each "day" was bounded by its evening and by its morning. The natural objection to this view is, that the interval between evening and morning is not "day" but "night;" but the objection itself recalls the interpretation (f) given above, of the seven days of Creation as

seven successive dreams given to some prophet of old. This is the suggestion once put forth by Hugh Miller, and adopted by the late Rev. Prof. Charles Pritchard, in his work, *Nature and Revelation*; and it deserves careful attention.

If Genesis I is a revelation from God, it must have been made originally to some man; it is through some man that we have received it. We have instances in Scripture of many types and kinds of revelation. Sometimes the prophet has heard an audible voice; sometimes the Divine message has been impressed inwardly in his spirit; sometimes his own organs of speech have been moved by the Divine power; sometimes he has fallen into a trance and seen a vision; sometimes the revelation has come to him in the dreams of sleep.

Now the language of this first chapter of Genesis deserves special attention; it is unlike all other Scripture. No man was present; God was the Actor and the only Historian; yet we have nowhere the prophetic formula: "Thus saith the Lord." God is always spoken of in the third person; yet, though no man could have been present, the record reads as if it were that of an eye-witness, who saw the whole succession of events passing before his sight, though he took no part in them and no word was addressed to him. If we think of the chapter as the record of some seer to whom the whole was revealed in a week of nights, the dream of one creative day each night, the expression, "and there was evening and there was morning, day one" comes with the simplicity and graphicness of a personal narrative by the prophet. The sun went down and darkness fell upon the landscape: then, as with Eliphaz the Temanite, "a thing was secretly brought to him, and his ear received a little thereof. In thought from the visions of the night, when deep sleep falleth upon men" (Job iv, 12-13). Between the evening and the morning the vision came to him, the vision of the first day of Creation—"ther as evening and there was morning, day one."

### VIII.—"GOD SAW."

But this was a vision, a dream. Visions have their place and purpose, but as scientific men we crave for the actual, as religious men for the real. If the vision was true, there must have been a reality which it represented and expressed.

Five times over in the chapter we read "God saw." How often have these words been read as if they ran, "man saw"? It is not the same thing, for "the Lord seeth not as

man seeth, for man looketh on the outward appearance." (I Samuel xvi, 7.) Man sees the outward appearance, the effect, the phenomenon; God sees the inward substance, the causes, the reality; that which lies at the basis of nature, as well as that which is at the basis of character.

This thought is strikingly expressed in the 139th Psalm:—

" My substance was not hid from Thee,  
 When I was made in secret,  
 And curiously wrought in the lowest parts of the earth.  
 Thine eyes did see my substance yet being unperfect;  
 And in Thy book all my members were written,  
 Which in continuance were fashioned,  
 When as yet there was none of them."

And these words are as applicable to the weaving of the wondrous fabric of the Cosmos as to that great mystery, the formation and growth of the yet unborn child.

" Which in continuance were fashioned." The continuity of nature is the dominant note of science to-day, the thought that nature as it now is, has been " fashioned in continuance " from its condition in the past. It is a new thought in these, our times; it has hardly found general recognition for three generations of men; yet it is clearly intimated here and elsewhere in the Scriptures in documents that were written nearly 3,000 years ago.

We have seen that creation precedes continuity, and is not an item in its course, but when did creation take place? The answer to that question is not so obvious as some have been ready to suppose.

The existence of man as recognized by God Almighty, did not begin with man's own consciousness of it, but with the beginning of that continuity of nature which eventually resulted in man's coming into living, conscious existence. He existed to God long before he existed to himself. This truth is set forth with great distinctness in the address of Wisdom, in the book of Proverbs, where the work of creation is especially referred to.

" The Lord possessed Me in the beginning of His way,  
 Before His works of old.  
 I was set up from everlasting from the beginning,  
 Or ever the earth was.

\* \* \* \* \*

When He gave to the sea His decree,  
 That the waters should not pass His commandment:

When He appointed the foundations of the earth.  
 Then I was by Him, as One brought up with Him :  
 And I was daily His delight,  
 Rejoicing always before Him ;  
 Rejoicing in the habitable part of His earth ;  
 And My delights were with the sons of men." (Proverbs  
 viii, 22-31.)

Six times God uttered the creative word ; six times that word was followed by the instant coming into existence of that which had been commanded. But when God beheld that which He had made and saw that it was good, does it follow that, could a man have been there to look on, there was anything present which would have been apparent to his sight ; anything, that is to say, that he could have recognized as an accomplishment of the command ? Turn back to the text which I have already quoted : "Thine eyes did see my substance yet being unperfect, and in Thy book all my members were written, which in continuance were fashioned when as yet there was none of them." Is not the Psalmist here enunciating a truth that concerns much more than his own bodily existence ? If this earth of ours had consciousness and spirit, as well as mass, might it not repeat the very words of the Psalmist ? Might not sun and moon and all the heavenly host join in the same ascription and so with all the forms of life and energy ?

And this, not only because God is all-knowing, foreseeing the end from the beginning, and beholding the thing that is afar off as if it were near ; but because He can perceive and gauge the outcome of the hidden forces now secretly in operation. To Him the far-off results are present, both because He is not subject, as the creature is, to the limitations of time, and because He sees the causes that are working towards the final effect. When God spoke it was done, and God saw it, and saw that it was good, for He had then put forth the power that would accomplish His entire purpose. "So shall My word be that goeth forth out of My mouth : it shall not return unto Me void, but it shall accomplish that which I please, and it shall prosper in the thing whereto I sent it." (Isaiah lv, 11.)

#### IX.—THE WORK OF THE SEVEN DAYS OF CREATION.

The detailed examination of the work of the separate days of creation is far too large a subject to be dealt with at the conclusion of a paper, already inordinately long, yet I would like to make a few brief suggestions—

THE FIRST DAY.—The third verse of the chapter tells us “And God said Let there be light, and there was light.” But light is a form of energy; therefore the creation of light involves the creation of energy. Further, though we conceive of matter as being distinct from energy, yet we cannot conceive of them apart the one from the other; that therefore which is hinted at here, is the creation both of matter and of energy as we know them: the material of the Cosmos.

Did anything exist before the Cosmos, before matter and energy? This appears to be hinted at, both in verse 2, and in Hebrews xi, 3: “Through faith we understand that the worlds were framed by the word of God, so that things which are seen were not made of things which do appear.”

But we cannot conceive of any such state, for our conceptions are limited by our experiences, and these are confined to the Cosmos. Any description of the pro-Cosmos, if such there were, must be cosmomorphic;—*i.e.*, expressed in terms of the Cosmos—such as the “waste and empty” of verse 2, and the suggestion of an infinite ocean in absolute darkness: a plenum of emptiness, if the paradox may be allowed.

The creation of light, that is of matter and energy, involves also the creation of Time; for Time enters in as an essential element of light. Hence we read “There was evening there was morning, day one.”

“Day one.”—The “one” here is absolute, not relative. This first day was the original and type of all later days; Time now began to be.

How far light extended at the moment of its creation, we cannot say. No hint is given as to whether the new-born energy permeated at once to the utmost extent of space, or whether it developed, as if from some small germ—if the figure may be permitted—until the whole of the pro-cosmic darkness was leavened. Neither are we told how long, according to human reckoning, that first day lasted; whether it was but a mere instant, or an extended æon, or whether perchance it was equal in length to one of our own human days. We are told only that “light was”—it came into existence; and its creation came between the evening and the morning of a day of God. Thus the work of the first day was not only the beginning of creation, it was the prototype of the work of each of the days that followed. God spake and it was done. There was evening, there was morning; darkness gave place to light; non-entity to entity.

I am not inclined to follow those who connect the work of

the first day, directly or indirectly, with any form of that which is known as "the Nebular Hypothesis." And this, for three reasons: (1) I can trace no reference to the hypothesis in the chapter. (2) The nebular hypothesis is concerned with the continuity of nature; that is to say, with the continuousness of its evolution, not at all with its creation. And (3) there is no form of that hypothesis, at present recognised, which does not offer serious scientific difficulties.

A SECOND DAY.—The significance of the Divine command on this day is, as it appears to me, that God then set in action the forces which should finally result in the separation of the Earth—that is to say, the globe on which we live—from the rest of the Cosmos. If this be so, the omission of the verdict, "it was good," is natural; nothing new was called into existence this day; it was the selection of a portion of the universe to be the scene of the great Divine drama. From this time forth, the narrative is essentially concerned with the Earth.

A THIRD DAY.—Here the point which I wish to make is this: We know that the creation of light and the separation of the material of a planet from the rest of the universe do not necessarily involve that that planet shall ever present a surface, partly of land and partly of water, or shall ever become the home of plant life. If we accept the doctrine of evolution, even in its fullest range, that carries with it no necessity that the course of development on a given planet must be analogous to that which has taken place upon our Earth; or that it should ever attain there the same results that it has done here. For example, so far as we can ascertain anything concerning other worlds, we may feel confident that none of the planetoids, such as Eros, ever has been, or ever will be, the home of any form of organic life. That our Earth has "habitable parts" involves, therefore, that a definite provision to that end was made by the Creator.

A FOURTH DAY.—Here let it be noted that, though our system has a single sun, this is far from being the only type among stellar systems and, therefore, is not an inevitable result of stellar evolution. Similarly, though every planet in our system is lighted by the sun, yet our Earth alone possesses a moon in the true sense of that term. Several other planets possess satellites, but these are all negligible in mass as compared with their primaries, and negligible, too, in the light which they afford. That our Earth has a greater light-giver to rule the day, and a lesser light-giver to rule the night, involves, therefore, that a definite provision to that end was made by the Creator.

This was but the fourth day, and man had not yet been created. Yet the Wisdom of God already was rejoicing in the habitable part of His Earth, and His delights were with the sons of men. For the greater light and the lesser light were not only for signs and for days and years, they were also for "seasons"; that is to say, for the solemn assemblies for the worship of God.

A FIFTH DAY.—"And God said Let the waters bring forth abundantly, the moving creature that hath life." This would seem to imply, not the creation of new material, but rather the raising of existing material to a higher plane of activity; in other words, life was brought forth from non-living matter. We have, as yet, no scientific experience of any change of this kind, and we may well say concerning it, "This is the finger of God"; it is peculiarly His operation. But should such experience be ours in the future, it is well that we should remember that such a change is already chronicled here as having taken place in the past.

THE SIXTH DAY.—"And God said Let Us make man in Our image, and after Our likeness, and let them have dominion." This was the word of God; He spake and it was done; He did not create new material, but He called into existence then and there the powers and conditions which shall lead up to this glorious consummation. But it was not within a period of twenty-four hours from the time of the speaking of that word, nor yet for thousands of years to come after, that the image of God was fully seen in a Man, Who was God manifest in the flesh. And we still wait for the "dominion" in its fulness; "we see not yet all things put under Him."

THE SEVENTH DAY.—"And God blessed the seventh day and sanctified it." I would only note here that, to the senses of man, there is no difference observable between the seventh day and the other six; the distinction between them does not lie in the region of phenomena. Yet God has distinguished between them, and He calls upon man to do the same, and man is able to fulfil that command; so that though one day is in itself like the next, yet man can consecrate and keep holy the seventh day, and make an essential difference between that and the rest. And in so doing, man thus far fulfils the purpose of his being, for he shows forth the image of God, "Who rested on the seventh day from all the work which He had made, and blessed the seventh day and sanctified it."

## X.—“IN THE IMAGE OF GOD.”

In the foregoing paper I have tried to bring out the thoughts which this first chapter of Genesis have impressed upon me.

I think it tells us of the Beginning; that God created all things; that He created all things in seven days of God. By creation I do not understand the bringing of all things into their final manifestations, but the bringing into operation of the essential powers and principles, which should lead to those manifestations in the fulness of time.

I do not know when the Beginning took place; I do not think the slightest hint is afforded to us. I do not think that we can determine how long in human measure were those seven days of God. The suggestion pleases me, I must admit, that they were revealed to man in symbol and in vision, in seven consecutive nights; that between the evening and the morning, the seer, whoever he was, saw in dream the work of the successive days of God’s Week. It may be, but we cannot tell, that God, in His acts of creation, may have consented to limit Himself by the very limitations of time which hereafter would be the necessary limitations of His predestined creature, man, and that the Week of God may have been, in absolute duration, exactly equal to a week of man; it may be, but unless God tells us so in so many words, we cannot know, and I do not see that it matters to us.

So far, for the chapter itself. One word further on the alleged conflict between Religion and Science, for, when that supposed conflict is mentioned, it is this chapter that is generally in the speaker’s mind.

The Astronomer Royal, in the admirable speech which he made to us on the occasion of our last meeting here, said that astronomy was descriptive only; and that which is true of astronomy is true of all sciences: they seek to describe things as they are.

Astronomy, geology, biology;—these are especially the three sciences which are supposed to contradict (or to confirm, for some writers take an opposite view) the chapter before us. Wherein can the contradiction (or confirmation) lie? There is no allusion whatever to geology; no hint as to the respective ages of carboniferous and cretaceous strata, or even as to the existence of strata at all; and the allusions to objects that come within the domains of astronomy and biology go no farther than the merest mention of less than a dozen of the most obvious

natural objects. I must confess that the attempts which have been so frequently made to discuss this chapter as if it dealt with the results of scientific investigations, astonish me with their unreasonableness, and fill me with admiration at their far-fetched ingenuity.

The first chapter of Genesis is no handbook of science, no epitome of the course of evolution. It is the revelation of God :—“God said”; “God saw”; “God created”; “God called”; “God made”; “God appointed”; “God divided”; “God ended”; “God rested”; “God blessed and sanctified.”

If I am right, it is through missing this essential thought that the idea has arisen that there is some conflict, some opposition between the teaching of this chapter and the discoveries of science.

But if any still allege that such a conflict exists, let me point out that they have two positions to make good. First, they must prove that the discovery that they adduce is one, the significance of which in this relation cannot possibly be altered by any discovery which the future may bring to light: a position no truly scientific man would adopt. Next, they must show that this chapter contains a contravention of it: a position impossible to anyone who has read the chapter with attention.

Science deals only with the relation of created thing to thing within the continuity of nature, and can, in no direction, extend its researches to its origin and beginning, its creation.

This chapter does not deal with the relations of thing to thing, but reveals God the Creator, the Origin and Beginning of all things. Our powers of observation and reflection were given to us by God in order that we might acquire the knowledge of external nature for ourselves. But the Creator Himself is here revealed to us, because our natural powers of observation and reflection are incompetent to make Him known to us.

And this revelation is for the purpose of teaching man his true relation both to God and to nature. He is made in the image of God, after His likeness. Here is the high dignity of man, his solemn responsibility; the duty is laid upon him of showing forth to his fellow-men and to his lower fellow-creatures, the love and mercy, the truth and justice, the wisdom and patience of Almighty God, the God Whose image he was created to bear, and to make manifest.

Here lies his right to dominion over nature; not in his own essential worth, but in the fact that he is God’s chosen representative. Independent power and authority he has none; as the son of God, made in His image and likeness, deriving all

his life and power and authority from Him, God "hath put all things under His feet."

Here has arisen the conflict between Religion and Irreligion—there is none between Religion and Science. "Religion" means "the binding of man to God"; a binding which, if he is to manifest God's image, and to rule as God's representative, is essential. Irreligion means the dissolution, the denial, or at least the neglect of this relation. Hence there are many who are ready to admit in words that there is a "Great First Cause," but in practice they ignore Him; He is to them merely "a negligible factor."

The brute beasts know not God, and cannot hold intercourse and communion with Him; they follow their natural propensities and passions, for they are not capable of anything higher.

But if man, by creation the son of God, made in the image of God and to manifest His likeness, holds himself separate from and independent of God, the beauty and perfection of created nature is destroyed, and man, the highest of created things, becomes most out of harmony with the purpose of his being.

Every man, indeed, perceives in his neighbour and must recognise in himself, that the image of God which he presents is, at best, blurred, broken, imperfect and defaced; but if, instead of striving after the Divine likeness, he is content to manifest only the likeness of the beast, whether it be in the indulgence of its passions, or in its ignorance of God, then there is seen in him, not only sin against God, but sin against his own essential Manhood. For Manhood consists in this, that Man show forth God's image and make manifest His likeness.

#### DISCUSSION.

The CHAIRMAN expressed his special satisfaction in presiding on that occasion as it was the first opportunity he had had of welcoming Mr. Maunder as their Secretary. He thought that in the paper that had just been read, Mr. Maunder had handled a very difficult subject on the lines which the Victoria Institute had laid down for itself in dealing with such questions. The object of the Institute was the frank and full discussion of questions in relation to religion and science, but in a reverent spirit. They did not ask all to conform to strict orthodoxy; they did not ask that everyone should

think exactly alike, but they did ask that all should discuss the important problems, which were always springing up, in the same spirit of reverent desire to arrive at the truth.

He was bound to say, that after a very long experience, having heard this first chapter of Genesis fought over ever since he was a small boy, he knew of no better answer to the questions on both sides than the paper to which they had just listened. Their first duty was to take the words of the chapter as they found them and not the words as they might wish to make them.

Mr. M. L. ROUSE had listened with delight to this admirable paper, with its concise logic and rhythmical and harmonious language, and had been struck by several thoughts contained in it, which appeared to be wholly new.

The theory to which the author inclined, that the six days of creation were six nights of vision, in each of which a distinct operation of God was revealed, appeared consistent with the fact that each day seemed to be limited by "an evening" and "a morning." Yet it would have been difficult to have phrased the sentence otherwise, if it had been intended to express a full day of 24 hours, and he thought "evening" and "morning" might have been used, rather than "night" and "day," simply to avoid the ambiguity between the two meanings of the word "day," which might signify either the period of daylight, or the whole 24 hours. The older nations such as the Arabs and the Phœnicians put the evening before the morning, beginning their day at sunset, but that ordinary days of 24 hours were here meant appeared probable from the fact that the seventh day was of this kind, being one that Adam enjoyed in communion with his Creator, while the Ten Commandments put the six days in the same class as the seventh.

He was a believer in the theory marked (b) on page 132 of the paper. In Hebrew where the verb "to be" would simply be the copula, it was usually omitted, but it was expressed where it meant "became," or "came to be," as in verse 3. Now the word "was" was expressed in the first clause of verse 2, but not in the second, so it might be inferred that the first clause meant that the earth had become "waste" (*tohu*), "and void," in harmony with Isaiah xlvi, 18,—"I created not the world a waste (*tohu*) I made it to be inhabited." Geology taught that, just before the appearance of man, the earth had passed through the cataclysm that brought on the glacial epoch.

Lest anyone should declare that the second chapter of Genesis gave an account of creation conflicting with that found in the first, he would point out that in this case the account in the second chapter would be a very strange one, for neither fishes nor creeping things were mentioned as created at all. Genesis ii, 4,—iv, 26, was one of ten sections into which, after the Divine preface, the whole book was divided, each of the ten beginning with the phrase "These are the generations," and each starting with the summary of the chief subject treated of in the preceding section.

Mr. Maunder had said that there was no difference in signification between "God created" and "God made." He thought that there was. *Bara*, rendered "created" each time that it occurred in the chapter, was the only word that the Hebrew had for created, whereas *asah*, rendered "made," usually signified manufactured out of existing tangible material, so if the light-holders (verse 14) were said to have been "made," whereas man was said to have been "created," the meaning might simply be that after a longer obscuration the light-holders then again became visible.

The DEAN OF CANTERBURY said that he had read Mr. Maunder's paper with very great interest, and joined in offering hearty thanks to him for it. It was one, however, which he thought they could not adequately judge upon a first hearing. It gave a great deal of material for thought, and he should not like to express an opinion about all its suggestions without much more consideration than had yet been possible. He was particularly grateful to Mr. Maunder for the emphasis he had laid on the fact that this chapter was really more a revelation of God, and of God's relation to man, than an historical or scientific account of the creation of the world. He also dwelt on another point of profound importance: that it was a chapter which could not have been derived from any mere human source. It could not have been derived from experience, or even by inference. The scientific facts which pointed to that gradual development of the earth which it described were not known to man at the time. To his mind, despite all the difficulties which surrounded it, this first chapter of Genesis afforded conclusive proof of direct Divine revelation. They had listened to a discussion on the words "evening" and "morning," and "created" and "made." He remembered, however, a remark once made to him when some small point was being raised respecting a newspaper article. A great

master of public writing said to him, "Never mind that ; you have to do scene painting." He did not think it was sufficiently realized that whoever wrote this account of creation in 25 verses had to do scene painting. It was impossible to be minutely complete and accurate on every particular point. In scene painting a general effect was produced ; and he took it that that was what had been done here. He had sometimes been bold enough to ask himself whether if some great master of science were put into a room with a sheet of paper, and told to produce a general account of the creation of the world within the limits of that sheet of paper, he would produce anything very different from that first chapter of Genesis. That was not a mere suggestion of his own, for a great master of science in his day, Sir William Dawson, definitely stated in one of his books that he did not think a more effectively true account of the development of the earth could have been written, in the same space, than that contained in the first chapter of Genesis. Whether Sir William Dawson was absolutely right in that statement or not, to his mind the amazing thing was that such an observation should be possible with any approach to truth about a chapter of a book written many thousands of years ago. In connection with that, he should like to say one other word. It had been the fashion for some time to talk of these accounts of creation as having come from Babylon. For what reason ? Merely because there was some distant resemblance in them to things contained in the Babylonian tablets. That did not prove that the Babylonian records were prior to these. It was equally possible, and more probable, that this was the original revelation, and that the other accounts were corrupted from it. There was another thing about this chapter, and the second chapter also, which ought to take us far above the vulgar dispute between religion and science ; namely, that it undoubtedly contained, apart from theological questions, the most profound revelation of man's position on earth, and of man's nature and relation to God. It was a very striking thing that the germinal idea of Bacon's philosophy was derived from this chapter, namely, that the function of man was to have dominion over nature, so that it might to a certain extent be regarded as the original starting point of the great ideas of modern science. One read a great many philosophies, at least one did when one was young, but in all philosophy, so far as he was acquainted with it, he never heard

it said that the business of man was to increase and multiply, and to replenish the earth and subdue it. That was the revelation of the function of man upon earth made in this chapter, and nowhere else ; and he was proud to think there was one nation in the world which had to a great extent lived up to it, and that was the Anglo-Saxon race. It was because the Anglo-Saxon race had been increasing and multiplying and replenishing the earth and subduing it, that it had obtained the predominance it enjoyed. He only hoped it would go on fulfilling that commandment in all respects. He was bold enough to make another suggestion about the second chapter of Genesis. There was a passage which very much puzzled a good many people. It said Adam was entrusted with the naming of the creatures. It seemed to some people a curious function to be assigned to Adam, and they were puzzled to know how he carried it out. He ventured to suggest that that description of Adam naming the creatures was an Oriental suggestion of the function of man as a scientific creature. The function of all science might to a large extent be described as that of naming things which involved distinguishing, and classifying them. He ventured to think that we were very prosaic people, in comparison with those who wrote these books. He would suggest they were both poetry and history—history couched in an Oriental, semi-allegorical style, which it was very difficult for us to comprehend. He was sure that many of our difficulties in the Bible, and even in the New Testament, came from our taking in the cold blood of modern prose expressions spoken, and meant to be understood, with the large meaning conveyed in this Oriental language. At all events, apart from all the details, the marvel of it was that we should have in our hands a chapter which dated back beyond the dawn of literature, yet which nevertheless contained the great central truths of man's nature and of his relation to God and to the world. Looking at it from that point of view, it affords conclusive testimony, at the very outset of the Holy Scriptures, that they came from the hand of God.

Mr. W. Woods SMYTH considered that Mr. Maunder had treated his subject in a new and original way. And his opening words rang out clearly the foundation truth, namely, that “there are only two possible sources for the chapter, God, Himself, the Creator, who knew the mode and order of creation, or man, who did not know, but imagined it.”

But the English version, which Mr. Maunder had generally followed, as much misrepresented, as represented, what God had written for our learning. There was much truth in the contention of the Jews that the Hebrew Bible was the only inspired Word of God.

Mr. Maunder spoke of a Divine fiat on each day—not so the Hebrew. The imperative, was never used. Again, the word “create” in Hebrew was used about eighteen times outside the chapter, but never to denote a special Divine act, always to indicate the production of things by a natural process. The one apparent exception, Numbers xvi, 30, really supported this rule. The Targum found in this Hebrew word the idea of selection.

The continuity which the English version led Mr. Maunder to believe to be absent from the chapter, on the contrary, was everywhere present. The so-called tenses of the Hebrew verbs were almost entirely in the imperfect, and signify, according to Gesenius, “the incoming,” “the continuous,” and according to the late Canon Driver, “the progressive continuance or development of the past,” or to Ewald, “the relatively progressive.” Even the perfect tense indicated “that which has been in the past, and is still going on,” while the expression “the generations of the heaven and the earth in their being created” signified organic succession and completed the proof of continuity. The first chapter of Genesis was, therefore, as even Professor Haeckel perceived, an evolutionary document. The intellectual Fathers of the Church saw this fact from the Greek version, and St. Augustine said, “the animals were created by a process of growth, from imperfect to perfect forms, which the after time brought forth.” The tenses for each day’s production are also in the Hebrew causative voice, Hiphil, thus recognising all that modern science tells us of the influence of environment.

In relationship to the so-called creation of light, Mr. Maunder says, “therefore the creation of light involves the creation of energy . . . that, therefore, which is hinted at here, is the creation both of matter and energy,” etc. Even the English Bible showed this to be a mistake. The first verse of the chapter spoke of “the heaven and the earth,” that is the universe. The second came down to the earth itself, and said, “the earth” (not the earth and the heaven) was *tohu va bohu*, “waste and empty” “and darkness was on the face of the deep,” that is on the ocean deep—literally

the *raging deep*—and at that era it was so. “And the spirit of God brooded on the face of the waters. And God said, let there be light.” Where? In some place in the universe? No. The subject was not now the heaven and the earth, but the earth only. The light, therefore, was shown where the darkness had been, namely on the face of the deep. Before the solidity of earth permitted of land standing out of the waters, the water covered the whole earth to the depth of about two miles. The translation “in the beginning” was misleading; there was no article in the Hebrew here, although very plentifully used in this chapter. It was not, therefore, the beginning of all things, as of energy and matter, etc., that was intended, but a beginning relating mainly to this poor one-mooned world.

When we considered the facts that the time ratios of Genesis and of our leading geologists agreed; that the order and distribution of life, beginning first in the waters, also agreed with those stated by Sir Archibald Geikie; that the day divisions in Genesis agreed with the divisions of Professor Haeckel; that the days were called æons in the Epistle to the Hebrews, and were so understood by all the Greek fathers; then we dared not doubt the reality of Divine revelation and the truth of the Bible.

Dr. A. T. SCHOFIELD thought the beauty of Mr. Maunder’s paper consisted in what it contained, and that a good deal of its wisdom consisted in what was left out. He thought Mr. Maunder’s remark that the words “Let there be light” implied the creation of energy might be open to question, but he would ask whether it was quite certain that the words “Let there be light” necessarily implied the original creation of light in the universe. He would like to allude to Dean Wace’s wonderful words about the breadth and scope of the magnificent painting in this chapter; he ventured to suggest that, being painted by the Divine Artist, its accuracy in respect to the minutest word used was as conspicuous as the majestic breadth of the painting. Now one speaker had already pointed out that the word “was” occurred twice in the second verse but was only expressed once. “Darkness upon the face of the deep”; the “was” not expressed; but “the earth was without form and void,” the word “was” expressed; the Hebrew usage suggesting that the first statement simply expressed that the darkness was there, and the second that the earth had become without form and void.

from its previous condition. If we further bear in mind that these last words never occurred in Scripture except in connection with sin and some judgment of God, we might perhaps get a fuller light upon that second verse. Then on page 133, Mr. Maunder said that each working day was bounded by the evening and the morning; it would be well to bear in mind the fact that on the seventh day, when God rested, there is no mention either of evening or of morning.

The CHAIRMAN pointed out that unfortunately very few of them there were accurate Hebrew scholars, and he was convinced that no one but an actual Hebraist ought to discuss the minute verbal details of this chapter. The marvel was that books of such infinite difficulty for minute analysis conveyed such a splendid and distinct impression on the average man; it was one of the evidences of the Divine truth of the Holy Scriptures.

Professor H. LANGHORNE ORCHARD was sure that the very hearty thanks of that large meeting would be given to the author of the paper to which they had been listening,—a paper which, for originality and vigour of thought, linked with vivacity of style and diction, took rank among the best of the many valuable contributions in religion, philosophy, and science, with which their Society had been favoured.

The paper was adorned by many gems of truth. Genesis i is a revelation of God by Himself,—“God is the only source of light concerning himself” (page 126). The creation work on any one of the six days “was good and complete in itself” but “contained no germ or potentiality” of the work of a future day (page 130); before the work comes the fiat; man is made in the image, and after the likeness, of God (page 141).

But though we concur with the author that the primary object of this revelation is religious and designed to teach men the seven great truths he brings forward on page 127, yet it may be pointed out that this is not a complete account of the matter. Genesis i contains also other truths. God has been pleased to put the spiritual jewel in an historical and scientific setting—a setting which, since He is the God of Truth, must (if the revelation be from Him) itself be true. The Divine Author of the chapter tells men several science-truths, unknown to science when the chapter was written and for centuries afterwards, *e.g.*, the firmament in which the sun

and the moon are placed, is not a solid vault but is an "expanse" similar to that in which birds fly; grass (or sproutage) and herb yielding seed after his kind, etc., were earlier than the great whales (or sea monsters), which in their turn preceded cattle, succeeded by man. The fact that these and all other science statements are in complete accord with modern science goes to attest the Divine Authorship of the narrative.

The Rev. JAMES THOMAS expressed the earnest hope that the Council of the Victoria Institute would arrange for the special publication in separate form of this most important paper.

The LECTURER thanked the Meeting for the great attention with which they had listened to him, and for the very kind reception they had given him. He would not attempt, at that late hour, to reply to the different criticisms that had been offered on his paper; except to point out to Mr. Rouse, who had represented him as saying that there was no difference between "God created" and "God made," that he had really said that he would not debate the difference; not quite the same thing. And to Dr. Woods Smyth he would reply that, however the words of the chapter were translated, it yet remained clear, that when God said "Let this, or that be," something happened which would not have happened if that word had not been spoken.

The Meeting adjourned at 6.15 p.m.

#### SUBSEQUENT COMMUNICATIONS.

Mr. J. SCHWARTZ, Junr.: I agree with the two fundamental propositions of our lecturer, but I fear that he will consider me quite unqualified to discuss this subject to any profit, as I cannot accept absolutely the third proposition that God is Himself the Author of this chapter.

There is no more evidence of this assertion than for the similar claims of priests and the like all the world over for their own traditions. The vast majority of men of liberal education, including a number of the clergy, accept to-day his alternative that it was written by men who did not know but imagined it. I admit that it seems self-evident both that the universe does exist, and that it had a beginning, and that we desire to know how it began. Our author has put exceedingly well the relativity and limitations of our knowledge, from which it follows that such wish is never likely to be

realised, as we can never hope to get final explanations, or ultimate knowledge.

Much of the Bible that is taken literally by the orthodox appears to many of us to be meant figuratively, but this story of the Creation, which from the richness of the details clearly refers to the manufacture of the Universe, including our World, and all therein in six literal days, is taken figuratively. Geology, anthropology, and astronomy have demonstrated that this literal account is quite inconsistent with the established truths of evolution. It would be a strange form of revelation that caused Christians for seventeen centuries to accept this plain tale of Creation about 6,000 years ago, and to resist the growth of natural knowledge which has ultimately disproved it and established modern civilization. This new knowledge is being spread broadcast, and our author, by linking these obsolete traditions with the ethical inspiration of the Bible, is ensuring the rejection of both, or, as the German proverb puts it, is "throwing away the baby with the bath."

The Rev. J. IVERACH MUNRO, M.A.: The value of this paper, showing as it does the impossibility of true Science coming into collision with the religious aspect of the universe revealed in Genesis, chapter i, is very great. The aspect pertaining to Physical Science must be left to men of Science, but with regard to Biblical Science, and in connection with the sublime reticence of the narrative, and the lofty conception of God, as alone the Author of all, attention may be drawn to a single point, viz., there is room in the narrative for the creation and rebellion of angels prior to the creation of mankind, and for their destructive influence.

Contrary to the usual opinion, the Hebrew narrative actually appears to go out of its way to make room for this doctrine, which, developed in the Old Testament, culminates in the teaching of our Lord and His Apostles in the New.

In the second verse the usual Hebrew construction to express continuous development would have been, as all Hebraists are aware, the imperfect with vav conversive, *i.e.*, וְתֵהִי הָאָרֶץ *wat-tehí hā'ā-rets*, which would be correctly translated "and the earth was," etc. The fact, however, is that the narrative goes out of the usual order to say וְהָאָרֶץ הָיְתָה *w'hā'ā-rets hā-yethāh*, the vav being separated from its verb, the usual way in Hebrew of expressing the pluperfect. The earth was not created a waste and a void, it had

become so. Translate "now" (*cf.* Genesis iii, 1), "the earth had become," etc.

When we turn to the third chapter of Genesis, verse 1, we find the same peculiarity in the narrative. The "Serpent," used as the embodiment of the power of evil, is spoken of thus: וְהִנֵּה שָׁנֶה הָיָה *Wehan-nāh-hāsh hā-yāh*. "Now the Serpent had become," etc., not *was* as in our translation. Hence the hypothesis (*b*), mentioned by Mr. Maunder on page 132, has a distinct basis in the Hebrew, and is consonant with the development of the teaching of both the Old Testament and the New concerning "principalities and powers, the rulers of the darkness of this world, and spiritual wickedness in high places," which wrought desolation in this created order of things, and tempted man to his destruction, but have now been conquered by the God-Man Who is to be manifested in all them that believe.

Dr. HEYWOOD SMITH, M.A., M.D.: I accept all three of Mr. Maunder's propositions wherewith he opens his paper.

I believe there is nothing in the Bible contrary to Science when we read them both aright, for they both have the same Author. Take, *e.g.*, the circular theory of storms, a discovery of comparatively recent origin,—it is clearly set forth in Ecclesiastes i, 6,—or Job xxvi, 7, "He hangeth the earth upon nothing."

Starting on these premises, I hold that Genesis i, 1, stands unique, as a comprehensive statement of fact: that then millions of ages rolled by, giving time for the deposits of coal and other strata, the crystallization of gems, possibly by electricity, etc., and then (verse 2) for some cause (hidden from us) the earth *became* "anyhow and nohow," a water-covered dark sphere, and it needed the "brooding over" of the Holy Spirit to usher in what we may call the second stage of creation. Then God said "Let light be, and light was." Remark that light was not created: light is the result of energy, possibly electrical (see Ezekiel i, describing the electrical (amber) manifestations round the throne)—or the sun, being its source, yet hidden by the dense mist rising from the hot water-covered earth, gave a sort of day and night to the already rotating earth.

And here I may state that I see no reason, if we are to believe in an Omnipotent Creator, why this fitting of the earth for the pre-Adamic race should not have been accomplished in *six days* as we have them now.

On the fourth day the power of the sun was allowed to pierce and dissipate the mists, and the sun and moon were established as a means whereby man should be able to mark time.

Verse 27. When man was created God made them "male and female" and said "*replenish*" the earth—as if it had been peopled before.

Then after ii, 3, there was apparently another great cataclysm. Probably here Satan, who had been appointed ruler of the earth, lifted up because of all his splendour (Ezekiel xxviii, 11–19), rebelled against God Who had given dominion to a new order of beings. Satan was overthrown, the angels that had sided with him became his ministrant demons in his crusade against mankind until he is for ever put under the all-conquering feet of the Son of Man.

This cataclysm might have been brought about by a slight "wobble" or tilting of the earth's axis of rotation, whereby the glacial area was brought low enough to destroy most of the inhabitants except those on the equatorial belt.

Then we have an account (ii, 4–25) of a *forming*, not *creating*, a "moulding" out of red earth by God of a man He called Adam, as if He would try again to establish a race that, with the gift of free will, would yet do His will.

Note the order of the development of things in this chapter is the reverse of that in the "Creation" chapter—in a district, already called Eden, God planted a garden, and gave it to Adam as a restricted dwelling place: its rivers are spoken of as already named. Then after some appreciable time, after animals had been formed, a female was granted to man as a helpmeet. Satan then immediately set to work to try and mar this special work of God, man whom He had formed for His glory.

"Lo these are but the outskirts of His ways  
And how little a portion is heard of Him."

Job xxvi, 14.

Lieut.-Col. M. A. ALVES, R.E: It was shown some years ago, by the late Mr. George Pember, that the interpretation of Genesis i had suffered much from Gnostic influence. In the face of verse 1, the eternity of matter in a state of chaos could not be maintained; but verse 2 was interpreted as meaning that its original creation was chaotic. As Mr. Rouse has pointed out, Isaiah xlvi, 18, refutes this

view. In that case, verses 3 to end of chapter must refer in their leading interpretation to restoration and not to original creation.

It may, however, be the case that the six days' work contains also a revelation of the chief order of events in the original creation, before the catastrophe of verse 2 happened, and that only those events common to both—prior to the creation of man—are mentioned. There may also have been a pre-Adamic race of men, whose wickedness caused the catastrophe, and whose disembodied spirits are the demons, as distinguished from the devil's angels.

I incline to the view that the days of Genesis i are short days, unless—what is not mentioned in the chapter—the higher grade plants were brought into existence on the fifth day when there was insect life to fertilize them.

As to the mystic meaning attached to the Hebrew tenses, I have heard the same sort of thing with reference to other languages; and I may say that I do not believe a word of it. The Bible was not a message confined to the learned few who alone could understand it.

Regarding the fifth—sixth day creation, did I not know how “the world is given to lying,” I should wonder why the nineteenth century revisers kept out of the text the “living souls” of the lower animals, in verses 20, 21, 24, and 30, and also in ii, 19, though they are in the text of the Hebrew, Greek, and Latin.

Referring to the Dean of Canterbury's remark on verse 28—“Be fruitful and multiply, and replenish the earth and subdue it,” I would observe that those alone have a right to the privilege of the former part, who observe the duties of the second. “What therefore God hath joined together, let not man put asunder” (Matthew xix, 6). The God of nature does not encourage the survival of the unfittest.

. The Rev. A. IRVING, D.Sc., B.A.: So far as I have been able to study this paper, I do not see that the author has done much for the further elucidation of such a difficult subject, even if he does not “set back the hands of the clock.” He seems to me to be not entirely emancipated from that “slavish literalism” which Sir Gabriel Stokes used to deprecate strongly at the Victoria Institute. This comes out, I think, in his excessive reliance upon the Authorised Version. I would specially notice the fallacy of reasoning from the statement “God rested” on the seventh day.

It is surely inconceivable that "Creative and Directive Power" (Kelvin) should cease acting, or should "faint and be weary." It smacks too much of the "carpenter" notion of creation; and the late Professor Driver long ago assured us that the sense of the Hebrew is not "rested" but *desisted*, as I have pointed out elsewhere. "God said," "God saw," cannot be taken literally as implying use of lingual or optical organs, in a Being without body, parts, or passions; and I feel much more confidence in the phrase I have used for some years past in my papers in the *Trans. Victoria Institute*, in my correspondence in the *Guardian*, in my British Association Sermons, and elsewhere. The tense of the verb in the original is the imperfect, and denotes fact or action in progress ("was saying," "was seeing"). In all and through all it was surely nought else than "Creative Will and Thought realising Itself in matter and life and form," to make up the totality of the Cosmos. Hebraists of the first rank tell us that "God was saying" implies no actual use of speech, but is a *façon de parler* to denote the absence of effort on the part of the Creator.

The author seems to me to narrow the idea of inspiration too much. The quest we should be pursuing is, as to how the inspiration (which we all recognise in the chapter) wrought itself into the human mind. He inclines to the view of "visions of the night" (favoured by "an evening and a morning"); but let us not forget that He Who, presumably, gave the visions is also the Author of the human mind—the instrument of transmission of the thoughts—under the special illumination of the Spirit, which seems so strangely to be lost sight of. The author looks apparently with scant favour on "Evolution" (even after the able papers of Professor Sims-Woodhead and Professor Henslow); but he cannot get away from it, for the idea of evolution, coupled with directivity—in other words, "Creative Evolution" (Bergson)—bristles out in the essay from beginning to end.

The author looks at the question, on the scientific side, from the point of view chiefly of the astronomer, who perforce thinks mainly in quantitative terms of thought. I have approached it along lines of study and research, mainly on geological and biological lines, with the theological idea always present in the mental background. Our two perspectives, therefore, cannot be quite the same, though they must overlap; but I am glad to find that he, as

astronomer, has so little to offer by way of hostile criticism. I am afraid I cannot accept his ruling-out of the nebulae from consideration; I had rather hoped that he would have had something to say upon my query as to whether they are luminous or illuminated.

There is so much in the paper with which I thoroughly agree and, indeed, have to a large extent anticipated, that I can, as a student of theology, thank the author for it as a most valuable contribution to an important chapter of Natural Theology, in which I still stand for the "dual revelation" through the Spirit of God working (*a*) directly upon the human spirit; (*b*) in the minds of capable men, as interpreters of His works. ("There is a book who runs may read.") Rightly looked at, the whole of phenomenal Nature may be regarded as a continuous "parable in action," teaching the contemplative mind something of "the everlasting power and divinity" of the Godhead, as Saul of Tarsus has taught us, and psalmist and prophet before him.

Sir R. ANDERSON, K.C.B.: If my having written upon the first chapter of Genesis entitles me to a hearing, I should like to express my keen and cordial appreciation of Mr. Maunder's Paper, and my earnest hope that it will obtain a far wider circulation than our annual volume can give it. My purpose is not to criticise it, but merely to offer a few words that may possibly increase interest in its subject.

The order of Creation, as recorded in Genesis, has been "so affirmed in our time by natural science that it may be taken as a demonstrated conclusion and established fact." This was Mr. Gladstone's thesis in his *Dawn of Creation and Worship*. This was challenged by Professor Huxley on the ground that the testimony of the rocks was conclusive that reptiles existed before birds, whereas, according to Genesis (he argued), birds were created on the fifth day and "creeping things" on the sixth day—"creeping things" being defined by Scripture itself to include lizards (*Leviticus xi*). "The merest Sunday-school exegesis," therefore, he contemptuously remarked, refuted Mr. Gladstone's contention. I had the privilege and honour of calling Mr. Gladstone's attention to the fact that the Hebrew word rendered "creeping things" in *Leviticus xi*, 29, 31, was wholly different from that so translated in *Genesis i*, 24, 26, and that the *Leviticus* word, *sherez*, is the word

translated "moving creature" in Genesis i, 20, which records the first appearance of animal life on our planet. Huxley was thus "hoist with his own petard"! Instead of trampling on his challenger, Mr. Gladstone's "old world courtesy" led him to suggest a reference to some authority that both could recognise. Mr. Huxley expressed his readiness to appeal to "his eminent friend, Professor Dana"; and Professor Dana's decision was: "I agree in all essential points with Mr. Gladstone, and believe that the first chapter of Genesis and science are in accord."

But the matter did not rest there. This was in 1886, and in December, 1891, I brought up the question again in a letter to *The Times*, and put Mr. Huxley on his defence. He tried to shirk the question, but the late Duke of Argyll intervened to hold him to it; and after a correspondence, to which each of us contributed several letters, Huxley retired discomfited and left the field to his opponents.

I need not emphasise the bearing of all this on Mr. Maunder's paper. The tournament between Gladstone and Huxley in the *Nineteenth Century* appealed to the scientists of the world; and as the result, Gladstone's thesis stands: It is "a demonstrated conclusion and established fact" that Genesis and science are in accord. And the fact is wholly unaffected by the refusal of the so-called "Higher Criticism" to accept it. For with the dull tenacity of unreasoning unbelief, the "critics" ignore everything that conflicts with their "assured results."

The following sentence from one of Mr. Gladstone's letters to me in the first of Genesis controversy is worth reproducing here: "As to the chapter itself, I do not regard it merely as a defensible point in a circle of fortifications, but as a great foundation of the entire fabric of the Holy Scriptures."

The Rev. JOHN TUCKWELL, M.R.A.S.: I much regret my inability to be present at the reading of this excellent paper. I should like to have expressed more adequately my high appreciation of it than I can do in writing. The facts so frankly recognised are of great importance and as the facts of revelation rightly understood can never be contrary to the facts of nature rightly understood, there can be no contradiction of the one by the other. In the following Table I have expressed very briefly the results of many years' study of this wonderful chapter:—

"In the beginning God created the heaven and the earth"—an assertion of the universal Creatorship of the Almighty Elohim. The verse is disconnected from the next by the fact that the two Hebrew verbs in the two verses are in the same tense.

I. (a) "And the earth was without form and void." The word "was" is the Hebrew substantive verb and is so treated in the LXX, where it is translated by the verb *ei'ui*, "to be," and not by *γίνομαι*, "to become."

The Hebrew word for "without form" is *tohu*, translated by the LXX *αόπατος*, "invisible." It is here an adjective qualifying "earth." In Isaiah xlv, 18 and 19, it is an adverb and is therefore translated "in vain"—The phrase fittingly describes the Gaseous or Nebulous Period.

(b) "And darkness was upon the face of the deep." The Hebrew word for "deep" is *tehōm*. Lord Kelvin, in Vol. xxxi of the *Transactions*, tells us "that the material of our present solid earth all round its surface was at one time a white hot liquid." Above such a mass of molten minerals there would be many other minerals still in a vaporous condition. This was the Igneous Period of our world's history.

(c) "And the Spirit of God moved upon the face of the waters." The Hebrew word for "waters" is *mayim*, indicating a different condition from that described by *tehōm*. This would describe the Aqueous Period.

(d) "And God said, Let there be light." A different form of the Hebrew word from that used in verse 14 for "lights."

II. "And God said, Let there be a firmament" (or expanse). A condensation of aqueous vapours creating a separation between clouds and seas. This would be a continuation of the Aqueous Period.

III. (a) "And God said, Let the dry land appear." The first formation of continental lands—the Huronian and Laurentian Continents.

(b) "And God said . . . Let the earth bring forth grass." In the Hebrew a general term for sprouting things. Two kinds are then named herbs and trees.

The Palaeozoic Period, the age of gigantic plants: i. Cryptogams and ii. Phanerogams. The period during which most of our coal was formed.

IV. "Let there be lights" (not "light" as in verse 3). Astronomical changes producing no observable geological effects but overlapping III and V.

V. "And God created the great [sea] monsters . . . and every winged fowl" (or creature). Hebrew *tanninim*, meaning long creatures —Mesozoic Period. Huge aquatic and terrestrial saurians and great flying reptiles. Also first appearance of true birds.

VI. (a) "And God made the beast of the earth"—Kainozoic Period. Period of mastodon, mammoth, and other gigantic mammals and man.

(b) "And God said, Let us make man"—Kainozoic Period also. God's last creative act.

VII. "And God . . . rested on the seventh day." In what is known as "Recent" Geological Deposits, no evidence of any new creation is found.

Thus it seems to me that the chapter contains a true history of the creation of our world from its primeval condition to that which fitted it for the abode of man.

Of course it does not tell us everything, but selects some great creative act or acts distinctive of each Period, and then after the creation of man no new creature appears.

Rev. Chancellor LIAS: As a very old member of the Institute I cannot withhold a word of very high commendation from this excellent paper. The truth is, as the writer contends, there can be no collision whatever between the first chapter of Genesis and scientific research. The former deals simply with the original cause; the latter deals simply with effects and their secondary causes. Even a tyro in Hebrew knows that the "days" in Genesis i are not necessarily in chronological order, and people altogether unacquainted with Hebrew can infer from Genesis ii, 4, that the word "day," with the Hebrew historian, may mean a period of time of indefinite duration. Observe, I do not *deny* that the account of creation is in chronological order, and I only say that the word "day" *may* be an indefinite period of time. We have had, I think, too much dogmatism on points such as these. Mr. Maunder, in his enunciation of the "seven great truths" contained in Genesis i, takes care to avoid it (page 127). All I desire to contend for is that we have no right to read into the narrative of the creation anything that is not plainly and distinctly stated there.

The inferences we may choose to draw from the language are not in the same plane with the language itself.

I am much struck by the writer's caution displayed in page 123. Most of us are inclined to say that space is infinite because we are unable to conceive of it otherwise. True scientific principles forbid us to dogmatise on points into which we are unable to investigate. We ought to be thankful to him for reminding us that "science has no finality." It would be well if this principle were borne in mind in *all* branches of scientific investigation. We should be saved a good deal of pretentious nonsense about the "final and irrevocable results of modern scientific investigation."

I am inclined to agree with the writer that *all* true science must rest on observation (page 125). With regard to the seventh day rest, I may venture to contend that it implies the continuance of the earth in the condition in which it was when man was placed upon it. There have been since that time none of the organic changes which the history of the earth's crust displays before man's appearance on it.

I should be inclined to put another interpretation on the "evening and the morning" (page 133). But as the writer simply states his own impressions, controversy would be out of place.

I may conclude with the remark that I read Mr. F. H. Capron's *Conflict of Truth* some years ago with great satisfaction. It is an attempt to show that Genesis i does not conflict, on any point, with Mr. Herbert Spencer's *Synthetic Philosophy*. I am glad to find that the work has gone through several editions. It would be quite as easy to show that Genesis i was reconcilable with any other genuinely scientific treatise which may in the future supersede Mr. Spencer's. And for this reason : that Genesis i cannot conflict with any scientific conclusions, since it deals with matters anterior to, and beyond, all scientific conclusions whatsoever. I may add that Mr. Capron has recently published a new work called the *Anatomy of Science*. If it is as good as his former work it will be well worth reading.

**Mr. JOSEPH GRAHAM:** If we agree to the statement that "the creation of light, that is of matter and energy, involves the creation of Time; for Time enters in as an essential element of light," it seems to me the hint of verse 2, alluded to on the same page, becomes of more importance than the lecturer implies. "In the

beginning God created the heaven and the earth." If this is an inclusive statement, then the initial act of creation was light—the first manifestation of the Creator's power was light. If there were no matter upon which light could act, then the creative word should have been, "Let there be light and substance." It seems to me, therefore, that what is hinted at in verse 2 is clearly the existence of what light was created to act upon: "The earth was without form and void." This idea is in no way opposed to Mr. Maunder's exposition of the six acts of creative power, by which the order and development of the universe were, so to speak, regulated; in his own words, "the bringing into operation of the essential powers and principles which should lead to [their final] manifestations in the fulness of time." But the point I want to emphasise is this, that God is eternal, and though, as we have been shown, creation (in one phase) and time exist together, because God is eternal there must be an eternal aspect of His Almighty power. This, I think, we find in the first verse, "In the beginning God created." It does not contradict the idea hinted at by the lecturer of six further creative acts, by which the Creator predetermined to reveal Himself to His creature man. Given the relationship between matter and energy, it seems to me that the act done on the first day implies that matter was created in the mass, so to speak, and that energy and the other developments are the revelation of the Divine plan to make of the earth, until then without form and void, a habitation for that creature whom God made that he might be the recipient of the manifestation of Divine love. Take an example that perhaps comes nearest to the grasp of the untutored human mind, the mist that God caused so that the plants and herbs of the field should grow while as yet there was no man to till the ground. The key to the whole matter, it seems to me, lies in the purpose for which man was created. Not only this earth, on which man dwells, but the firmament and the other worlds, insomuch as they contribute influences to man's welfare, were created by God, that He might be revealed. As the lecturer suggests, each stage of the creation brings its effect to bear upon this ultimate result. With regard to man, we might apply the quotation from the cxxxix Psalm here also. For the only begotten Son of God, Who by His Incarnation came for ever into the limitations of creaturehood, is Head of creation—Head, if you like, of a continuous process by which the human race is brought the

perfection seen in Jesus Christ, the Man, perfect in His being through His resurrection from the dead.

Mr. T. B. BISHOP : Mr. Maunder's paper appears to me to be one of the most valuable that has ever been laid before the Institute. Certainly as many as fifty modern writers, many of them eminent men, and writing from an Evangelical standpoint, have included in their books some opinions on the Creation Story in the first chapter of Genesis, but Mr. Maunder strikes out an entirely new line of thought, and, what is more, raises the discussion of the question altogether to a higher level. He shows us that the Creation narrative cannot be criticised by Science because it relates to things before Science could possibly begin its work. In view of modern speculations, his testimony to the fact that the Creation narrative is utterly valueless unless it comes direct from God is of the highest importance. I trust that this paper will be published in a permanent form.

One or two remarks I should like to be allowed to make.

On page 131 Mr. Maunder speaks of six creative acts on the six days. Were there not eight creative acts, two on the third day, and two on the sixth day ? Each is introduced by the words "God said." If it is held that in the third day's work the plant life could be considered as the result of the appearance of the "dry land," yet we can hardly look on the sixth day's work in the same way. The solemn manner in which the creation of man is introduced separates it entirely from the creation of cattle and other living creatures on the same day.

In speaking of the second day's work on page 138, Mr. Maunder draws attention to the omission of the verdict "It was good." I may mention that the Septuagint version supplies the words omitted, and the verse there reads "God called the firmament Heaven, and God saw that it was good."

According to Mr. Maunder's interpretation of the work of the second day, all the verses before verse 6 refer to the Cosmos and not to our own globe. This was the view of Professor Guyot and Professor Dana, but the late Canon Driver in his *Genesis* says that this view gives an altogether impossible meaning to the words "earth" and "waters" in verse 2, which speaks of the earth as being "without form and void." I am anxious for information as to whether it is not possible to read the second verse as applying to our own earth alone.

On page 134 Mr. Maunder speaks of the chapter as the record of some seer to whom the whole was revealed. But in whatever way the revelation was given, must it not have been given to Adam ? The institution of marriage was necessary to man from the beginning ; so also was the institution of the Sabbath ; and the allusions to reckoning by sevens, as in the cases of Lamech and Noah, and the mention of the Sabbath in the Babylonian inscriptions, are surely proofs of its antiquity.

The paper does not mention what is known as the second narrative of Creation. I believe that if we look upon that as having been written by Adam himself from his own point of view—of course, under Divine guidance—it will clear up many difficulties.

I am not sure that I understand the reference on page 135 to the address of Wisdom in the eighth chapter of Proverbs, but by the use of capital letters the Messianic character of the passage is apparently recognised.

Let me say that if we could clear up all the problems connected with the Creation narrative we should be creating a Scripture difficulty instead of solving one. For it is by *faith* that we are to understand that the worlds were framed by the word of God.

It is very remarkable that this verse comes in the portrait gallery of the Heroes of Faith—the saints of old who endured every kind of trial and suffering as a test of their faith. We are in no danger in these days of being stoned, or sawn asunder, or even of suffering bonds and imprisonment. And yet there is a trial of faith for every young Christian who stands up for the truth of God to-day. And is there any part of Scripture that has been so much attacked as the Creation Story ?

#### AUTHOR'S REPLY.

I fear that Mr. Schwartz has not quite grasped the point that I wished to make in the first section of my paper. I had no intention of asserting that those who thought that the source of the chapter was in "man who did not know, but imagined it," were thereby disqualified from discussing it; but simply that, to be consistent, they must regard all such discussion as meaningless. "This first chapter of Genesis is only valuable if it comes to us from knowledge."

Dr. Irving infers that I have not made up my mind about Evolution. I had quite made up my mind that it would be foreign to my purpose to discuss it here. The chapter before us deals with Creation, and Creation is not a phase of Evolution. I should like to distinguish between two things which seem to me very different, namely, the past physical history of the world, and the account of its being brought into existence. For Scripture distinguishes clearly between two different modes of the Divine action, and we ought to do the same. There is that action which Scripture speaks of as "upholding all things by the word of His power"; or which we express by the "continuity of nature," or "the operation of the law of causality." It is within this field, and this field only, that Science can work, for "if the law of causality is acknowledged to be an assumption which always holds good, then every observation gives us a revelation, which, when correctly appraised and compared with others, teaches us the laws by which God rules the world."<sup>\*</sup> But there is also that other Divine action: "by Him were all things created"; that is, He called them into being.

There should be no difficulty in distinguishing between the two thoughts. For example, let us assume that man has come, by descent, that is to say by successive generation, from a lower animal; say a lemur of Madagascar; his modifications having been brought about by natural and sexual selection, by the struggle for existence, and the force of environment. If this be so, it affords us an example of Evolution, but no instance of Creation; and we must search into the ancestry of the lemur before we reach the Creation of Man. However far we can trace back man's unbroken descent—provided always that there has been no special Divine interposition, no new material, conditions or powers introduced—we are dealing simply with Evolution, and not at all with Creation.

If I read this chapter rightly, we are herein told expressly that the past history of the world has not been a single evolution; but that eight times—as Mr. Bishop well points out—the Creator has introduced new powers or new conditions, which did not arise necessarily and continuously out of those previously existing. In other words, it gives us no statement for, or against, the *descent* of man from a lower form, but it tells us expressly that he was not

---

\* *Theory of Observations*, Thiele, page 1.

*evolved* from a lower form. The distinction is important. The question of man's actual descent is one of scientific evidence ; but, if he be so descended, then we know by the revelation of this chapter that that living form which stood to him in the relation of ancestor, had in itself no power or potentiality of ever producing a man, no matter what the influence upon it of selection or environment. That which rendered the evolution of man possible was the creative word of God, "Let us make man." Whether man was, or was not, formed of new material, unrelated by descent to any other form of life, is unessential ; that which is essential is, that all that makes him man, and not brute, was by the new creation of God.

But if it be the case that man is descended from the brute, and has become man by creation, what evidence can Science offer us as to the Creation ? It can only testify as to the descent.

I do not wish to call in question the parallelism which I (page 132, section 4) have traced between the succession of events recorded in this chapter, and the history of the earth as Science presents it. But it seems to me, that, if used as an argument for the inspiration of Holy Scripture, it is not free from the charge of circularity. From the scientific point of view there is the further objection that it would appear to stereotype scientific conclusions : in other words, to put an end to scientific development. But there is one thing upon which the man of science will always insist :—that is, his perfect freedom to change any scientific conclusion, however firmly held to-day, if fresh evidence should be forthcoming to-morrow.

There is also a serious religious objection, as Mr. Bishop has very wisely reminded us. A complete scientific demonstration of this chapter would remove it from the sphere of faith, and it is "through faith we understand that the worlds were framed by the word of God." I have heard faith defined as "the assent of the intellect to a demonstrated proposition." This is exactly what faith is not, and if we could make this chapter a demonstrated proposition, Hebrews xi, 3, would be made of no effect. If we have faith in our fellow-man it is not because our intellect assents to some proposition that has been demonstrated concerning him, but because we know, or think we know, his character. So faith in God means that we know Him : that is, we in some measure apprehend His character ; not that we agree to some logical proposition respecting Him. I think we are sometimes tempted to forget this.

The interpretation of this chapter, which I have lettered *b*, on page 132, turns on some minute and questionable refinements of Hebrew grammar. But I do not wish to argue that, as a partial interpretation, it may not have some validity.

May I turn back to the seven truths which I believe the chapter was intended to teach us? I am no Hebrew scholar, but before writing my paper, I read carefully and in detail the translations and comments of many of the best Hebrew scholars, and I came to the conclusion that no one of these truths was in the least affected by any permissible variation in the rendering. Hence I followed generally the Authorized Version. I feel assured that these seven truths must appear on the surface of every translation of this chapter that has ever been issued from the Bible House; no matter what the tongue into which they were rendered, or how unskilful the translator. They are truths which are perfectly consistent with Science, but they are not deductions from it, nor do they enter within the range of its possible challenge. And they are fundamental for men: for all men; for us to-day, as in the dawn of the world's history. As the Rev. T. H. Darlow told us in the paper to which I have already referred, "The Word of God in the Bible is not of a nature to be affected by verbal changes such as can be made by time or accident." "In every version the Book retains its power to pierce the thoughts of the heart; it still remains sharper than a two-edged sword; it still divides joint and marrow."

NOTE.—The Rev. J. Iverach Munro points out that the part of the word "*re-plenish*" in Genesis i, 28, which Dr. Heywood Smith emphasises (page 153, line 5), is not represented in the Hebrew. It is the simple verb *male*, "to fill." It may be added that *replere* in Latin, and *replenish* in English, both often carry the meaning of "to fill thoroughly," and not necessarily that of "to fill again."

555TH ORDINARY GENERAL MEETING,

HELD (BY KIND PERMISSION) IN THE ROOMS OF THE  
ROYAL SOCIETY OF ARTS, ON MONDAY, APRIL 20TH, 1914,  
AT 4.30 P.M.

MR. A. W. OKE TOOK THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

The SECRETARY announced that Mr. Alfred Haigh had been elected an Associate of the Institute.

The SECRETARY also announced that the Very Rev. the Dean of Canterbury had been elected a Vice-President, and Mr. Joseph Graham a Member of Council.

The CHAIRMAN then called upon Dr. T. G. Pinches to read his paper, which was illustrated by numerous lantern slides.

---

*THE LATEST DISCOVERIES IN BABYLONIA.* By  
THEOPHILUS G. PINCHES, LL.D., M.R.A.S.

I.—CREATION-STORIES.

AS in the past, since its foundation in the first half of the last century, the science of Assyriology continues its forward march ; and as it progresses, it heaps up a fund of knowledge—small in this country, but greater in volume abroad ; for it is the one domain of Oriental research in which discoveries of importance and real interest, in its various branches, can be made. Every day brings Assyriology's votaries nearer to more precise interpretation of the inscriptions, and every year many new texts, some of them of considerable importance, are brought from the ruin-mounds of Babylonia and Assyria. Now and again finds take place in the museums where documents harvested in former years lie, awaiting the time when they can be studied at ease and their contents made known.

Earliest in the order of time—if their contents were really historical—are the legends, headed by those dealing with the Creation. Of these, three versions are known—that detailing the fight between Bel and the Dragon, which was first translated by George Smith ; the creation-legend of Cuthah ; and the bilingual version, which is simply an introduction to an

incantation, or a series of incantations—though it is none the less important on that account. In addition to this, a fragment, apparently of a fourth version, was discovered by George Smith when excavating for the proprietors of the *Daily Telegraph*. The Babylonians were therefore rich in accounts of the first beginnings of things, and the religious man had a choice of beliefs without much danger of being regarded as heterodox.

Further information concerning these legends, as also of those dealing with the Flood, have reached us from Philadelphia, in America. In that city, at the University Museum, the opening of the cases containing the inscriptions discovered at Niffer (the Calneh of Genesis x) has been resumed, with exceedingly gratifying results. One of these documents, inscribed in three columns on each side, has, in the first (to use the words of the translator, Dr. Poebel), "instructions concerning the building of cities, which, it seems, were given by the gods to the first men, whose creation must have been related in the now missing preceding lines." The end of the first column, however, supplies something of the missing portion, where, referring to the acts of the gods, we read, according to Poebel: "After Enlil, Enki, and Nin-hursagga had created the black-headed ones (the Babylonian designation of mankind), they called into being in a fine fashion the animals, the four-legged (beasts) of the field.\*"

Now in the legends hitherto known, or at least the two principal ones, it is Merodach who is credited with the creation of living things. To all appearance, then, this new version was composed before the worship of Merodach assumed the importance which it ultimately had, for his name seems not to be mentioned, the creators being Enlil, the older Bel; Enki, generally called Ea; and Nin-hursagga, "the Lady of the mountain," one of the names of the "Lady of the gods," who, in the bilingual story of the Creation, was associated with Merodach in the creation of mankind. This fact, with the identification of all the deities with Merodach, shows that, in the changes to which Babylonian belief was, in the course of centuries, subjected, every effort was made to disturb the current beliefs of the people as little as possible.

There is no doubt that this was one of the older forms of the Babylonian Creation-story—at least with regard to the formation of mankind and the beasts of the field, in which, unlike the Bible-account, the more perfect mankind, seems to

\* A common Babylonian way of referring to animal life.

have preceded the less perfect—the birds and creeping things. This is a point in which the Biblical account is the more consistent, though we cannot speak with absolute certainty, as the Babylonian records (except the bilingual version) are not complete at this point. The *Daily Telegraph* fragment, moreover, reads, as far as it is preserved, as follows:

“ When the gods, in their assembly, created [living things]  
 They formed the azure(?) firmament(?), they compacted(?)  
 the . . . .  
 They sent forth the living [creat]ures . . . .  
 The beasts of the field, [the animals of] the field, and the  
 denizens of . . . .  
 . . . . to the living creatures . . . .  
 [The beasts of] the field and the denizens of the city they  
 brought [into being(?)]\* ”

This inscription, which is very mutilated, seems to have formed part of a relation in the first person, as it has, in line 8, the words *ša ina puḥri kinti-ia*, “which in the assembly of my family.” The next line contains the name of the god Nin-igi-azaga, “the Lord of the bright eye,” one of the names of the god Ea as god *ša némeqi*, “of deep wisdom” (among other things) as a creator.

#### A Comparison with the Creation-narrative in Genesis i.†

Damascius, in his “Doubts and Solutions of the First Principles,” makes a special reference to the Babylonians

\* The following is a transcription of this fragment, as far as it is preserved:—

E-nu-ma šlāni ina pu[ḥ]ri-šu-nu ibnū . . . . .  
 ubaśsimu . . . . buṛumi iksu[ru] . . . . .  
 ušāpū [šikn]at napišti . . . . .  
 būl šēri u[mam] šēri u nammašē . . . . .  
 . . . . ana šiknat napišti . . . . .  
 . . . . bul š]ēri u nammašē áli uza'i- . . . . .  
 . . . . . gimri māmmašti gimir nabniti . . . . .  
 . . . . . ša in puḥri kinti-ia . . . . .  
 . . . . . -ma d-Nin-igi-azaga mina šu-ha- . . . . .  
 . . . . . p]uḥri nammašti uštarri[h] . . . . .  
 . . . . . kulla hamāni ir- . . . . .  
 . . . . . iš qa pi si . . . . .  
 . . . . . iš qa pi si u ša . . . . .

† Suggested by a consideration of Mr. Maunder's paper thereon at the last Meeting of the Victoria Institute.

rejecting the "one-principle" of the universe, and constituting two, namely, Tauthé and Apason (Tiawath and Apsū). These two forms of the waste of creative waters, which the early Babylonians conceived as existing, and as being the origin of all things, can hardly be regarded otherwise than as spirits of evil, and therefore, everything which they produced was, like themselves, full of bad principles, confused in shape and conception, and malevolent of disposition. The question with the Babylonians was not, therefore, how evil came to be, but in what way did good arise from this crude, unformed, evil, and violent progeny of those two principles?

And here we have an exceedingly interesting outcome of Babylonian cosmogony, and a very natural way out of the difficulty, namely, the doctrine of evolution. Not all the offspring of these two "first principles" were evil—some of them were good, and these good ones gave birth to others as good as, or better than, themselves. These were the gods of the heavens and all their host, whose perfection in goodness and righteousness, however, aroused hostility in the minds of Tiawath and Apsū, who, aided by their son Mummu, tried to destroy them. The dragons of Chaos, however, inspired such fear in the breasts of the good gods who had descended from them, that none of them succeeded in destroying Tiawath, Apsū, and their brood, until Merodach, the "Steer of Day"—the sun in his youthful strength—took from Apsū the tablets of Fate, which enabled him to rule the earth, and entrapped Tiawath in his great net, afterwards dividing her body, and placing one half as a covering for the heavens (the waters above the firmament), while the other part of her remained below, as the waters below the firmament. The ultimate result of Babylonian conceptions concerning the origin of the universe and the life therein would therefore seem to have been three—the two principles of evil with whom Creation originated on the one side, and Merodach and the good and the just gods of heaven, who created mankind "to redeem" (seemingly) Tiawath, Apsū, and their evil offspring and followers (when the fulness of time should come), on the other.

How early the date of the first conception of this philosophy goes back we do not know, but the perfection of the theory of evolution and redemption (?) may be set down at about 2000 B.C. Now my contention would be that the Hebrew strictly Monotheistic revelation of this same event was not only not derived from it, but was issued in opposition to it—to show the beginning of all things, to emphasize the fact, that that

beginning was good, and the creation of a good God, and that evil, when it came into the world, was an intruder, and had no part in the original scheme.

## II.—THE FLOOD.

Dr. Poebel tells us that the second column of the new inscription mentions some of the antediluvian cities of Babylonia, which Enlil bestows upon certain gods. In this portion there is a reference to the city Larak, identified long ago with the Lurancha of Berossus, according to whom it was the seat of many of the prediluvian kings of the land—Amempsinus, who reigned 36,000 years, and Opartes (miswritten Otiartes), the Babylonian U(m)bara-Tutu,\* the father of Xisuthrus of Surippak, whose reign lasted 28,800 years. It is needless to say, that additional information concerning these primitive Babylonian rulers will possess a value which everyone can appreciate—indeed, the story of the father of Xisuthrus, the Babylonian Atra-hasis (the Chaldean Noah), the “exceedingly wise,” the favourite of the gods, who saved mankind from destruction, and attained to immortality without death, would be especially welcome.

And the 3rd, 4th, 5th and 6th columns, Poebel tells us, refer to the flood of which Atra-hasis was the central figure. At that time, we are informed, Ziugiddu, “the long lived,” was king. He was a *pašišu*, or anointing priest of Enki (the god *Êa*)—all these ancient Babylonian patriarch-kings were priests of some kind or other—daily and constantly serving his god. “In order to requite him for his piety, Enki, in column 4 (the first of the reverse), informs him that it had been resolved, at the request of Enlil, ‘in the council of the gods, to destroy the seed of mankind,’ whereupon Ziugiddu—this part of the story, however, is broken away—builds a big boat and loads it with all kinds of animals. For seven days and seven nights a rain-storm, as we are informed in column 5, rages through the land, and the flood of water carries the boat away; but the sun then appears again, and when its light shines into the boat, Ziugiddu sacrifices an ox and a sheep. Lastly, in column 6, we find Ziugiddu worshipping before Enlil, whose anger against man had now abated, for he says: ‘Life like that of a god I give to him,’ and ‘an eternal soul like that of a god I create for him,’ ”

---

\* The Greek form Opartes shows that, at the time Berossus made his translation (about 250 B.C.), *U(m)bara-Tutu* was pronounced *Opartu*, or similarly (for *Obartu*, *Obartutu*, *Ombartutu*, *Ombaratutu*).

which means that Ziugiddu, the hero of the Deluge story, is to become a god."

As you all know, Babylonian stories of the Flood had already come to light, the first being that translated many years ago by George Smith, and forming the main portion of the contents of the 11th tablet of the Gilgameš-legend. Besides this, a fragment was found by Smith and now forms part of the *Daily Telegraph* collection; another, discovered by Father V. Scheil, has been acquired for the Pierpont Morgan collection; and a small fragment of a fourth version was discovered and translated by Prof. Hilprecht in 1910—a version bearing, perhaps, a greater resemblance to the Biblical account of the Flood than the others in the portion which has been preserved.\*

The new text at Philadelphia, however, is, according to Poebel, an entirely different account, "as will be seen from the fact that the hero bears a name different from that found in the other Deluge stories."† This new version, moreover (unlike those translated by Smith), is not written in Semitic Babylonian, but in Sumerian. Like many other legendary compositions of the Sumerians and Semitic Babylonians, it is couched in poetical form, and as such, Poebel suggests, served some practical purpose, ritualistic or otherwise. For various reasons he thinks that the tablet was written about the time of Hammurabi, and is therefore older than the versions already known (though that discovered by Scheil runs it very close). It is probable, however, that all the versions of the Flood and the legends in general are much older than the time when they were written—in other words, they antedate the tablets upon which they have been preserved to us.

For further details of the new version of the Flood-story, we must of course wait until the text itself is published, but just two notes may be made upon Poebel's abstract. The name of the patriarch, Ziugiddu, is new and unexpected, and its terminal *u* seems to suggest Semitic influence; though, as Poebel makes no comment upon this, no argument can be based thereon. The giving to Ziugiddu of an eternal soul raises the question, whether the Babylonians believed men to have possessed immortal souls before the time of Ziugiddu, or only afterwards.

---

\* For a description of this, see the *Journal of the Victoria Institute* for 1911, pp. 135 ff.

† His other names are *Ut-napišti<sup>m</sup>* (or *Uta-naisti<sup>m</sup>*) and *Atra-hasīs* ("the exceedingly wise"), reproduced in Greek as *Xisuthrus* (= *Hasis-atra*).

## III.—EARLY KINGS.

From the colour of the clay, the shape, and the script, Dr. Poebel thinks that another tablet from the same place, Niffer, belongs to the series. This portion, however, is inscribed with a list of kings—in fact, there seem to have been three tablets, each measuring about  $5\frac{1}{2}$  by 7 inches, upon which some primitive Babylonian historian had written an outline of the world's history, as he understood it. The first tablet probably contained an account of the Babylonian theogony, including the conflict between the gods—the younger and more advanced generation—and “the deity of Primeval Chaos,” typified by Tiawath, the sea, and “ultimately resulted in the creation of heaven and earth out of the two parts of Chaos.” If this be correct, the story agrees with the account in the fight between Bel and the Dragon.\* It would be at this point that the tablet just described comes in, with the history of the world down to the time of the Flood.

For those who prefer something of a less speculative character than the Creation and Flood-legends, however, the third tablet is of greater importance. This portion, when complete, gave a history of the world from the time of the Flood to the reign of the king under whom the tablet was written. The reverse—about an eighth of the whole text—was published in 1906 by Prof. Hilprecht, and gives two of the last dynasties on the list. Dr. Poebel, however, has succeeded in copying the much-effaced obverse, which contains the names of the kings immediately after the Flood, and he states that he has also found “larger and smaller fragments of three other and older lists of kings.” All Assyriologists and specialists in Semitic history will await this additional material with eagerness. Not only are the names of the kings given, with the lengths of their reigns, but also in some few cases there are historical details. As might be expected, the list takes us back into the true legendary period, for we find there Gilgameš, the traveller-king of Erech; Dumu-zi(da) or Tammuz, the luckless spouse of the goddess Ištar; Etanna, who, clinging to the body of an eagle, made a daring ascent to heaven, etc. Etanna is said to have reigned 625 years—short when compared with the thousands of years that his predecessors ruled, but a wonderfully long period

---

\* Otherwise Merodach and Tiawath, the Dragon of the Sea or waste of waters, to whom the Babylonians attributed the creation of the earliest living things.

nevertheless. Another king, called "the Scorpion," reigned 840 years; whilst Lugal-banda, a deified king of Erech, ruled for 1,200 years. Soon, however, the list becomes entirely historical, and the reigns are of the ordinary length—"36, 7, or 20 years."

A very long period must, in view of these long reigns, be assigned to the epochs dealt with, and this would appear to be confirmed by certain summations. Thus one of the tablets, written under the 134th king, the 11th of the dynasty of Isin, reckons 32,175 years, and another from the Flood to the 139th king, the last of the dynasty of Isin, 32,234 years.

And this brings us to the exceedingly important chronological list published by Prof. Scheil in October, 1911, which seems to be upon a precisely similar plan. This inscription gives the dynasties of Opis, Kiš, Erech, Agadé, and Erech again, and among the historical references we find one stating that Azag-Bau, queen of Kiš, who ruled for 100 years—she was the founder of her dynasty—was the wife of a wine-merchant; whilst another informs us that Šarru-(u)kin of Agadé was apprenticed to a gardener, and was cup-bearer in the temple of Zagaga. It is the final phrase of this important chronological document which attracts attention, however, for it tells us that "the rule of Erech was changed, and the army of Gutiu<sup>m</sup> acquired the dominion." This is a reference to the celebrated Median invasion, and from the time of the Flood until this date, according to the Greek writers, was a period of 33,091 years, during which time, however, only 86 kings ruled—a number which falls far short of the reality.

It seems not unlikely that this great Babylonian chronological document will prove to be a completion of that recognized by G. Smith among the treasures of the British Museum in 1873. It is needless to say that that scholar fully realized the value of his find, notwithstanding that its completeness fell far short, to all appearance, of the new records just announced.

#### IV.—ABRAHAM'S PLOUGH.

Coming to the period of the "Dynasty of Babylon"—the dynasty to which Hammurabi belonged, the new inscriptions which have been published do not add very much to our knowledge, either of the life of the period or the history of the time. We are still in doubt as to how this dynasty—which was of foreign origin, and seemingly kept the remembrance of that origin clearly in mind—came to the throne. Probably the most important work upon the period is Ungnad's corpus of translations—1,417 in number—in his book, *Hammurabi's*

*Gesetz*, which gives us numerous illustrations of the enactments contained in his Code of Laws. This, naturally, has considerable bearing on the manners and customs of the people, but I do not propose to go into that subject now, as it would lead me too far, and take up too much time in a general lecture like this.

An interesting detail, however, is that published by Professor Clay's *Documents in the Temple Archives of Nippur dated in the reigns of Cassite rulers*. This is contained in an archaic picture, copied from impressions of a cylinder-seal, representing ploughing. It was a seal made for a personage named Warad-Nin-sar, who was probably a farmer. The plough is drawn by two humped oxen, such as the Babylonians often used, and a man with a short beard, raising his arms, seems to be directing the operations. The handles of the plough are held by a longer-bearded agriculturalist, draped to the feet, and his long skirts must have hampered his movements to a certain extent. The most interesting figure, however, is one walking beside the plough, who, with his skirts bunched up to hold the grain, is engaged in peuring the seed down a vertical tube with which the implement is fitted. Two emblems occupy the field above, the larger being in the form of a Greek cross surrounded by an outline—as commonly found during the Kassite period, and possibly an emblem of divinity in general.

Similar ploughs to this are shown on other monuments—notably Esarhaddon's black stone in Babylonian script, now in the British Museum—and it is clear that such "improved" agricultural implements were common in the East—the Semitic East—of ancient times. But the noteworthy thing about it is that the seeding device was regarded by the Jews as being an invention of Abraham. This interesting fact has been pointed out by the American Professor James A. Montgomery, who quotes the very interesting statement concerning it made in the Book of Jubilees—a kind of Midrash on Genesis composed about the second century B.C. According to this work, the people made idols, and indulged in all kinds of abominable practices, instigated thereto by Satan, who tried in every way to corrupt and destroy the people of the land. Among other things, Prince Mastema "sent ravens and other birds to destroy the land, and rob the children of men of their labours. Before they could plough in the seed, the ravens snatched it from the surface of the ground. And it was for this reason that he called his (Abraham's father's) name Terah, because the ravens and (other) birds reduced them to destitution and devoured

their seed." (This etymology for Terah is probably due to the Arabic *تارح*, *tarih*, "to be sad, afflicted.")

When, however, Abraham was born, he became known on account of his youthful piety—so much so that his mere word sufficed to disperse the flocks of ravens which came to devour the scattered seed. That year the people were enabled to sow and reap, but we are told that Abraham taught those who made implements for oxen, the artificers in wood, and they made a vessel above the ground, facing the frame of the plough, to put the seed therein, and the seed fell down therefrom upon the ploughshare, and was hidden in the earth, so that they no longer feared the ravens. And after this manner they made vessels above the ground on all the plough framework, and they sowed and tilled all the land, according as Abraham commanded them, and no longer feared the birds.

The author of the book, Professor Montgomery suggests, may have been a Babylonian Jew, who thus made Abraham the inventor of this combination of plough and seeding machine. In the opinion of the Jews, Abraham was the discoverer of letters, astronomy, and the arts, and it is therefore quite consistent that he should have invented this device. Perhaps we shall sooner or later find the name of the seeding tube in Assyro-Babylonian, but we can hardly hope for a confirmation of the statement that the Hebrew Abraham was its inventor.

Though this cylinder-seal belongs to the time of the Kašsite kings (Nazi-muruttaš, fourth year—fourteenth century B.C.), the plough depicted must have been invented at a much earlier date—possibly, indeed, in the time of Abraham. Unfortunately, the early Babylonian tablet dealing with agriculture does not refer to the plough, either because it belongs to a too early date, or (as is more probable) because it is imperfect.

Seemingly, after taking possession of his field, the farmer surrounded it with a protection of reeds, and proceeded to capture any stray gazelle that he might find, and get rid of the birds (*sabita ukassad*, *ériba idikki*). In another paragraph the digging of the field, the protection of the seed, the capturing of birds, and the removal of weeds or undesirable growths—ŠAM-IN with KUR before it is more likely to mean "herb" which is "hostile" than "snail" as the thing which is "hostile to the herb." In the next paragraph there is a reference to the watering of the field and the increase of its grain. Then, "in the day of harvest," he divided and parted the field, and measured to the proprietor the portion due to him according to the contract.

Notwithstanding the usefulness of the implement, the plough seems to be but rarely mentioned in the inscriptions. A word found in the laws of Hammurabi, and written with the Sumerian group GIŠ-GAN-UR, which is translated by the Semitic *makaddu*, is translated, doubtfully, as "plough," but this, as a star or constellation, is explained as *kakku ša Aé ša ina libbi-šu apsā tammaru*, "the implement of Ae (Aos), in the midst of which thou (mayest) see the deep," and this, taken in connection with the fact that in those laws it is coupled with the watering-machine (possibly the *shadouf*), makes it probable that it indicates the wooden conduit which carried the water to the fields. This group, GIŠ-GAN-UR, however, has another rendering, namely, *maškiktu*, seen in the phrase *ina maškikat mušarē ušakkak*, "he shall seed the furrows with the wooden conduit," in Sumerian : *giš-gan-ur mušarene giš-abūrra*, i.e., with the tube of the plough.

#### V.—THE NEWLY-DISCOVERED TABLETS FROM ERECH.

Tablets are always coming from the nearer East—either from Babylonia, or from Assyria, or from one of the countries of old under their influence (the Hittite States, or Syria, or Palestine)—so that we are always getting additions to our material. A hundred thousand documents (mostly of little import) are known, and it is probable that a hundred thousand more at least await discovery in those lands.

Among the most recent discoveries are the sites of Drehem and Jokha—sites which, however, are to all appearance unmentioned in the Old Testament, or, indeed, in any ancient record. Their historical value, nevertheless, is considerable, as they give us the names of many new kings, not only of the dynasty which ruled in these districts, but also of the states in the neighbourhood.

Of greater importance, however, because of Biblical reference, is the site of Erech, now known as Warka, which is the old Arabic form of the same name. As we learn in the tenth chapter of Genesis, verse 10, Erech was founded by Nimrod (Merodach), the order being "Babel, Erech, Accad, and Calneh," all in "the land of Shinar," as Babylonia was then called. One of the best indications that Nimrod is Merodach is furnished by the bilingual Babylonian story of the Creation, which attributes the foundation of Babylon, with its temple Ē-sagila ; Erech, with its temple Ē-anna ; and Niffer (stated by the Rabbins to be Calneh), with its temple Ē-kura, to the deity in question. We have in this a distinct confirmation of the Biblical record,

notwithstanding that the inscription which furnishes it is a heathen religious text—an incantation for purification.

As far as I have been able to examine them, the new inscriptions from Erech are of the later period of Babylonian history, and are mostly trade-documents, generally or often mentioning transactions connected with the religious life of the place—the great temple where the god of the heavens, Anu, with the goddesses Ištar (Venus) and Nanâ were worshipped. The small collection I have seen embraces the period from Nabopolassar to the period of the Seleucidae—that is to say, from 626 to the end of the second century before Christ.

Probably the most interesting inscription of the collection is one referring to a necklace or collarette, dated in the 19th year of Nabopolassar. This tablet has, on the reverse, a rough sketch of the object, and if the reading of the inscription were certain, it would have some philological value. The necklace contained 41 white *nurmar* and 4 other *nurmar*, possibly "pearls," and was priced at 3 *mana* 57 shekels of silver.

Another tablet—a contract for barley—dated in the 1st year of Nebuchadrezzar, has the name of the governor and the *šatam* ("treasurer"?) of E-anna, the great and renowned temple of Anu at Erech.

In the matter of officials—their names are not only important historically, but are likely to be so likewise chronologically—an inscription dated in the 19th year of Nebuchadrezzar is of greater value. This refers to a loan of 1 *mana* 22½ shekels of gold, granted by "the Lady of Erech and Nana" (the goddesses of the city) to Nabû-ētir-napšati, Governor of the Land of the Sea; Nabû-šûzizanni, deputy-governor of the same, and Zilla the scribe. It is at once an historical document and a picture of Babylonian life. This loan was consummated at Babylon—not at Erech—in Nisan, the first month of the Babylonian year, in the presence of Maruduk-iriba, the mayor (?) of Erech; the *šatam* (? treasurer) of the temple of the Syrian Hadad, here called *Amurrū* ("the Amorite god"); a priest of Ur (of the Chaldees); and Nabû-nadin-šum the scribe, and was to be repaid in the month Tammuz.

Now this and other tablets show that the temples of Babylonia were exceedingly rich, and we see from this inscription that they could make their riches useful to the State, for the money was granted without interest (provided that it was repaid at the date mentioned), and in view of the importance of the persons to whom it was lent, there is every probability that it was for some public purpose—what that may have been is not here stated.

From a tablet preserved in the British Museum we see that the three principal personages—the governor, deputy-governor, the mayor (?) of Erech, the priest of Ur, and Bēl-uballit, “Governor of the other side,” had all been at Babylon two years previously, probably in connection with some other public business, or, perhaps, as attendants on the king. Travelling backwards and forwards in ancient Babylonia was therefore common, especially on the part of officials. Evidently Nebuchadrezzar’s reign was one full of life and activity, but already many then alive were to see its downfall and the beginning of its decay.

But, it may be asked, whence did the temples of Babylonia obtain their great riches ? To all appearance—indeed, there is no other explanation—they came from the offerings of the faithful, either of produce of the earth, from tithes and dues, or from lands donated to the shrines and temples. The date plantations of “the Lady of Erech and Nanâ” were therefore very extensive, and were in all probability let out to farmers and orchard-men, whilst the produce of those cultivated under the priests’ directions was loaned at interest, or for work to be performed, or else was sold. It was in this way that the temples obtained their enormous wealth—wealth which had practically been accumulating for thousands of years, unless unfavourable conditions at any time interrupted this accumulation, and caused, as is possible, a lessening of the temple’s funds. The histories of the Babylonian temples have yet to be written, but if the material accumulates as it is now doing, this will be possible before long, and many will be the revelations as to their resources. Not only had they lands and plantations, but also they possessed a considerable number of cattle, both small and large, as more than one of the inscriptions which I have seen indicate ; and these animals were marked with the special mark (*šindutu*, adj., masc. pl.) of the temple.

Like the rest of the Babylonians, the Erechites worshipped “gods many and lords many”—Addu or Hadad, Amar, Amurrū (Awurrū), “the Amorite god,” Ēa, the god of the sea, Bābu or Bau, the “glorious” goddess of healing; Bēl (Merodach); Gula, a name of Bau ; Dannu, “the strong one”; Nebo, whose great popularity was increased by his name being compounded with that of numerous Babylonian kings, including Nabopolassar and Nebuchadrezzar ; Nergal, the god of war, disease, and death ; Ninip (Anušat, according to Pognon) ; Šamaš the sun-god ; Sin the moon-god ; Zagaga, god. of battle; and others, besides the patron-deities of the city, Anu, Antu<sup>m</sup>, Ištar, and Nanâ. All

these were popular deities during the period of native rule, but with Nabonidus and his son Belshazzar, native dominion came to an end, and foreigners ruled the land—first the Medo-Persians, then the Seleucidae, and finally the Arsacidae. At what date the Babylonians forsook the worship of the “merciful Merodach” is unknown, but the later inscriptions, which are large and fine tablets, show personal names compounded almost exclusively with those of Anu (the great deity of the place), Ištar, and Nanâ (the goddesses worshipped with him). With the fall of Babylon, its patron-deity, Merodach, together with his consort, ceased to exist for Erech—they had failed to defend the independence of the land, and though their shrines were retained in the temple, with the people Merodach and his companions—his manifestations—lost their influence. “Babylon the Great”—the old and renowned capital of Shinar, the beginning of Nimrod’s kingdom—had indeed fallen—she had lost her position not only among the nations, but also in the land to which she belonged. But the famed Tower of Babylon, the rallying point of the nation after “they left off to build the city,” still retained its place in their minds, if not in their estimation, as we shall presently see. Perhaps they hoped that it would again become a rallying point, and Alexander, had he lived, would undoubtedly have tried to realize this, but it was not to be. With his passing, the influence and the importance of Babylon passed away, never to return.

#### VI.—TOWER OF BABEL AT BABYLON.

The history of the rediscovery of the description of the Tower of Babylon has an interest which is not without its sadness.

Before his last journey to the Semitic East, where, in former years, he had seen some success, George Smith, the Assyriologist, had in his hands, for a time, an inscription which, with his usual sharpsightedness, he recognized as a detailed account of the great Temple of Belus at Babylon, and the Zikkurat or Temple-tower connected therewith. Knowing its importance, he published a short but exceedingly valuable abstract of the tablet’s contents (*Athenaeum*, Feb. 12th, 1876), doubtless with the hope of being able to turn his attention to the document again on the completion of his work in Babylonia. This hope, however, was never fulfilled, for he died in the East, and is buried in the Christian churchyard at Aleppo.

Scholars naturally recognized the importance of his description

of this tablet, and it has often been quoted—Professor Sayce even reproduced G. Smith's rendering in full in his Hibbert Lectures of 1887,—but no one knew the whereabouts of the original document. I myself have often spoken of the disappearance of the record—once before this Institute—in the hope that the newspapers would carry the news farther—perhaps to the notice of the owner—but without success, or at least without effect. Probably no seeker for the document lost hope, however, for clay, when in a good condition, is practically indestructible—wilful damage alone can utterly ruin a clay record.

This being the case, none were surprised, and most scholars were gratified to learn, last year, that the missing inscription had come to light again at last, and was in the hands of the Rev. V. Scheil. The document, however, did not belong to him, but to Mme. Femerly, who had possessed it for a long time, and its whereabouts had been indicated to Father Scheil by M. Schlumberger in 1912. Under the title of "Esagil, ou le Temple de Bel-Marduk," Father Scheil, aided by the well-known architect and archæologist, M. Marcel Dieulafoy, has published a most valuable monograph upon the record. Both these scholars are Members of the Institute of France.

The tablet first described by Smith is a beautifully-written document,  $7\frac{1}{2}$  inches high by 4 inches wide. It is inscribed with 39 lines of writing in seven sections on the obverse, and 11 lines in three sections on the reverse. In the large blank space which follows are three lines wide apart—the colophon—which state that the copy in question was made in the 83rd year of the Seleucid Era (229 B.C.).

The first section contains the dimensions of the *du-mah* or "sublime sanctuary," wherein were to be found the sanctuaries (*du*) of Ištar and Zagaga, and the *azamū* of the Ubšukina, or "place of Assembly," where the New-Year ceremonies took place in the first fortnight of Nisan, the first month of the year. The "sublime sanctuary" and the shrines connected therewith did not form part of the Tower, but of É-sagila, the great Temple of Belus (Bel-Merodach). The *du-mah*, which was a kind of terrace, and which contained the shrines of Ištar and Zagaga, measured, according to Dieulafoy,  $633\frac{1}{2}$  Babylonian feet from north to south and 270 feet from east to west. To the east of this again was the great terrace, 540 feet wide (from north to south) and 720 feet long (from east to west). These two structures were centred on a lower platform measuring in total depth (east to west) 990 Babylonian feet. The total depth of the lower terrace (whereon the higher central portion stood) was 200 feet.

The great Temple-tower, called  $\hat{E}$ -temen-an-ki, “the House of the foundation of heaven and earth,” lay farther to the W.S.W. It lay in the great courtyard—the terrace of  $\hat{E}$ -temen-an-ki—measuring 1,200 Babylonian feet each way, and entered, according to the plan of the German explorers, by nine gates. Of these the names of six only are given, the others having been blocked, seemingly by rows of cells placed against its eastern wall. Section 3 of the inscription gives us the names of these gates: the Sublime Gate; the Gate of the Rising Sun; the Great Gate; the Gate of the Lamassu (protecting genius); the Gate of Abundance; and the Gate of the Glorious Wonder (*ka-u-di-barra*). These gates and the courtyard or platform itself, were used for the ceremonies of the  $\hat{E}$ -*kur* (Temple of the Land)—so called, perhaps, to distinguish this sacred portion from the inner sanctuaries, both of the Tower and of the Temple of Belus.

Within the enclosure of the platform or terrace, near the western wall, lay the *kigallu*<sup>m</sup> or platform of the Tower itself, measuring 600 Babylonian feet each way. This was the base of the first stage, and the substructure (*kigallu*, § 4) of this world-renowned building. Centred to the extreme south-western edge of this, again, lay the true substructure (*kigallu*, § 5)—in reality the Tower’s lowest stage—measuring 300 “enlarged” feet each way. This rose to a height of 120 feet above the platform upon which it stood.

Here the tablet mentions (§ 6) the chapels or sanctuaries of the Tower, six in number, which surrounded it on this level. Two of these were situated on the east, and dedicated, one to Merodach, and the other to Nebo and his spouse Tašmētu<sup>m</sup>. The latter was seemingly 45 cubits square and 40 high.

On the north, in couples (§ 7), were the temples of  $\hat{E}$ a and Nusku (the gods of the waters and of light respectively); on the south was the Temple of Anu and Sin (the god of the heavens and the moon); on the west were the *Tu’um* and “the temple of the net”; and behind these, facing “the Gate of the Implements,” was “the house” or “temple of the couch.”

The association of the “net” (*nam’istu*<sup>m</sup>) with the *tu’um* is interesting, suggesting, as it does, that the latter may be the Babylonian form of the Hebrew *Tehom* or “deep,” and the concrete idea of the deified Tiawath (Tiamtu) of the Babylonian Creation-story. Dieulafoy has followed George Smith in rendering *tu’um*, by “double” or “twin,” and this is a possible rendering. The twin-sanctuaries would in that case be the temples of the net and of the couch and throne respectively.

That the vocalization of the word for "twin" may be either *tu'amu* or *ta'umu* probably presents no difficulty to this interpretation. Nevertheless, I think well to place the other possibility on record, as well as a third alternative, namely, that the final *um* may be the case-ending of the nominative with the mimmation. In this case we should obtain the form *tu'u<sup>m</sup>*, the first element of *tohu we bohu*, "formless and void" in Genesis i, 2.

It is to be noted, also, that *tu'um* occurs without any prefix whatever, either of god, or of temple, increasing the probability that it was a "laver or sea"—preferably, perhaps, the latter, and symbolical of the brood of Tiawath whom, with her, Merodach caught with his net and his snare.

No image of the primæval Dragon symbolizing Chaos is mentioned here, otherwise the Dragon whose image Daniel so mysteriously destroyed (see the apocryphal book of Bel and the Dragon) might be compared. Perhaps her image was in the Temple of the Net which entrapped her, for it is not by any means unlikely that "Bel and the Dragon" may be founded on fact, and that the priests of Bel practised the deceit attributed to them. There is no evidence, on the other hand, that the Babylonians worshipped the Dragon of Chaos, though the ancestors of the Yezidis or "Devil worshippers" may have done so. It is, moreover, exceedingly unlikely that King Cyrus believed either in the Babylonian Bel, or in the mythological monster whom the god slew. That the scene of Daniel's trap to catch the three score and ten priests of Bel, and to destroy the Dragon with seethed balls of pitch, fat, and hair, causing the Dragon to "burst in sunder," may have been laid here, is exceedingly probable.

In front of the Temple of the Couch was the Temple of the utensils of the shrines, corresponding with it in length and breadth. Here, also, was a covered court shut in. The couch is described as being 9 cubits long and 4 cubits wide. There was a throne set by it, which, however, was separate from it—or, as the tablet says, the couch and the throne were two.

At this point the writer turns to the Tower itself—

The court containing the Gate of the Sun-rising (the eastern gate), the Gate of the South, the Gate of the Sun-setting (the western gate), and the Gate of the North, is a third—length, width, and height—of the base (?) of the Tower of Babylon. This is its (the Tower's) description:—

150 feet square, 55 feet high, of worked brick, was the lowest stage.

- 130 feet square, 30 feet high, enamelled, the second.
- 100 feet square, 10 feet high, recessed, the third.
- 85 feet square, 10 feet high, recessed, the fourth.
- 70 feet square, 10 feet high, recessed, the fifth.
- 40 feet long, a fraction under 35 feet wide, 25 feet high, variegated to the top, the seventh—the house *sahuru*.

And here we have it in all its details, as nearly as we understand them—the great Tower of Babel, the remains of which utilitarian Turkish contractors have removed from the face of the earth—that is, all but the core of unbaked brick. The tenth section of the tablet, which immediately follows, states, apparently, that this is a description of the extent and the area of the building, not examined, but written, verified, and made clear according to the copy preserved at the neighbouring town of Borsippa. It is sincerely to be hoped that the original of this present document will be found.

The tenth section gives the dimensions of 68 plantations and 20 meadows belonging to the Tower, and after this comes the colophon, in three lines of writing wide apart. It is as follows:—

“Tablet of Anu-bêl-šunu, son of Anu-balat-su-iqbi, descendant of Abu’utu, the Tir-annaite (=Erechite).

“(Written out) by the hand of Anu-bêl-šunu, son of Nidintu<sup>m</sup>-Anu, descendant of Sin-liki-unnini. Erech, month Chislev, day 26th,

“year 83rd, Siluku (Seleucus), king.”

The owner of the tablet had therefore gotten a namesake of his to write it out for him—a member, seemingly, of a very ancient family, that of Sin-liki-unnini, the traditional writer of the tablets of the Gilgameš-legend, the eleventh of which contains the story of the Flood.

In his elevation of the Tower of Babylon, attached to the Temple of Belus, called É-sagila, M. Dieulafoy adheres rigorously to the data of the tablet, and does not insert the possible dimensions of the missing sixth stage—in which, in fact, he does not believe. George Smith, however, thought that it ought to be restored, and in this he was probably right. It seems possible that, at the time the inscription was drawn up, the sixth stage, being in ruin, had been cleared away, and the sanctuary at the top erected on the fifth stage. Or is this due to the fact that, when “they left off to build the city,” as stated in Genesis xi, 8, they left off building the Tower as well,

and the seventh stage, which they intended to add, was never erected? There is much that we have to learn about this wonderful construction, which, rising in its majesty 200 \*Babylonian feet or more, must have been a conspicuous and brilliant landmark—like many another in that land—upon the Babylonian plain.

With regard to the discoveries made by the German explorers at Babylon, I was hoping to be able to say a few words, but the time needed to get a recently-published book from Germany was too great. I need only say, at present, that an outline of these will be found in my paper “Discoveries in Babylonia and the Neighbouring Lands,” which was read before the Institute on February 15th, 1909. For the sake of completeness, however, I recapitulate here with further details something of what I then said, and show some new slides, the best of which a friend, with very great kindness, has been so good as to give me.

From the extant remains Babylon is estimated by Delitzsch to have been about as extensive as Munich or Dresden, but there must have been a great extension of the city outside the inner walls. Any outer defences which the Babylonian capital may have had would seem long since to have disappeared. Whether it will be worth while excavating the land around the inner city is doubtful, but the German explorers have probably formed an opinion upon this point.

North of the Temple of Belus and the Tower lay the palace built by Nabopolassar (probably on the site of some smaller and more ancient erection), and enlarged by his son Nebuchadrezzar. The throne-room was a noteworthy chamber, tastefully decorated in enamelled brick. On the eastern side of the palace ran the sacred procession-street, on the right of which lie the ruins of the temple of the goddess Nin-mah, “the sublime Lady,” spouse of Merodach, who, with him, created mankind. Proceeding northwards, one comes to the Istar-gate, with its decorations in enamelled brick showing the dragon, the lion, and the bull of Babylon. The ruins of the Nin-mah temple have an altar before the entrance. Dr. Koldewey, the architect of the exploration party, has made a very attractive restoration of this building, with its lofty entrances facing the street and in the courtyard. One would like to know how these buildings were lighted. A number of inscriptions were found in E-mah (the temple of Nin-mah), some of them referring to the buildings of Babylon in general. They were of the Assyrian

---

\* See, however, the note upon the above, p. 192.

king Aššur-bani-apli, Nebuchadrezzar, Evil-Merodach, and probably other rulers. Koldewey suggests that a statue of Nin-mah occupied a central position on the platform of her temple ; and that it was here that Alexander made his daily offerings, according to custom, when he was ill (Arrian, *An.*, vii, 25).

In the southern portion of the city lay the temple of Ninip (in Semitic *Anušat*, according to Pognon). Unlike Ē-mah, this temple (which was called Ē-pa-tu-tila) had a courtyard east of the centre of the building, and three entrances. The chambers have recesses and platforms before which the ceremonies were performed, and which are closely centred to their respective entrances, implying a wish that worshippers in the courtyard should have a chance of seeing what was going on within. Numerous inscriptions were found likewise here—cylinders of Nabopolassar and his son Nebuchadrezzar (the last brought, in ancient times, from the Tower of Babylon), and 150 contract-tablets of the period Esarhaddon to Artaxerxes. These give nothing of importance for the history of the temple.

A very noteworthy thing is the evidence of other erections in this part of the city. The upper layers of the ground are thickly covered with Parthian graves, and Parthian and Greco-Parthian buildings are visible. Beneath these are house-ruins of the Babylonian period, the later houses being built over the earlier ones. This, says Koldewey, goes down to the level of the foundation water, and does not end even there, either beneath ruin-mounds, or where we find level ground. It is of interest to note also that the ancient city was not merely co-extensive with the existing mounds, but reached far beyond on every side.

## APPENDIX.

### THE CAPTURE OF BABYLON BY CYRUS, 539 B.C.

In accordance with my intention at the time, I add here a new rendering of the account of the capture of Babylon by Ugbaru or Gubaru, Cyrus's representative, as an addition to the remarks which I made on the occasion of the reading of the Rev. Craig Robinson's paper "The Fall of Babylon and Daniel v, 30," on December 9th last.

This tablet forms one of a collection acquired by the Trustees of the British Museum in 1879, and the text was published by

me, in the *Transactions of the Society of Biblical Archaeology*, vol. vii, part 1 (1880). It is not my intention to give here the whole inscription, but simply the events of Nabonidus's 17th year—that referring to the tragic event in the history of Babylonia and the native kings whom culture would seem in a measure to have unfitted for resisting the apparently ruder political powers around them.

"[17th year. They requested?] Nebo to go forth from Borsippa [to Babylon, and he went and dwelt in É-sagila]. The king entered into É-tur-kalama\*; [and made sacrifice? The people of the upper sea?] and the lower sea revolted. A journey of . . . . Bel went forth; the New-Year festival with success (?) they held. In the month . . . [Nergal and the god]s of Amarda, Zagaga and the gods of Kis, Nin-lil and [the gods] of Hursag-kalama entered Babylon. At the end of the month Elul the gods of Akkad . . . who are over the atmosphere and under the atmosphere, entered Babylon—the gods of Borsippa, Cuthah, and Sippar did not enter. In the month Tammuz Cyrus made battle in Opis on the river Tigris among the people of Akkad. He proclaimed (?) the people of Akkad rebellious (?)—he slew the people. On the 14th day Sippar was taken without battle—Nabonidus fled. On the 16th day Ugbaru, governor of Gutium<sup>m</sup>, and the soldiers of Cyrus entered Babylon without battle. Afterwards Nabonidus was made prisoner (?)—he was taken in Babylon. At the end of the month the guards of the land of Gutium<sup>m</sup> closed the gates of É-sagila—no loss of anything in É-sagila and the temples took place, and the least thing (?) passed not out. In Marcheswan, the 3rd day, Cyrus entered Babylon. The deputations (?) before him were numerous, asking safety for the city—"Cyrus, the safety of Babylon, all of it, command." Gubaru, his governor, appointed governors in Babylon, and from the month Chisleu to the month Adar, the gods of Akkad which Nabonidus had brought down to Babylon, returned to their sanctuaries (?). In the month Marcheswan, the night of the 11th day, Ugbaru [went] against [the citadel ?], and the son of the king died. From the 27th of the month Adar to the 3rd day of the month Nisan there was weeping in Akkad—all the people bowed their heads. On the 4th day Cambyses, son of Cy[rus], extended (?) the grant to the temple É-nig-had-kalama."

---

\* The temple of Ninip (Anušat, according to Pognon).

(The remainder of the inscription is too mutilated for a satisfactory translation.)

Whether I have succeeded in giving better renderings of certain difficult passages time alone will show, but two or three points come out with prominence. At the beginning of this long paragraph, in which I have inserted some words to make up the sense, it seems clear that the reproach levelled against Nabonidus, accusing him of removing the gods from their shrines, was correct. This, however, would seem to have been a common practice in days of national danger, such as he felt the country to be in, and it is perfectly certain that he would have been blamed if he had not done it. The god Bēl, referred to in connection with the New-Year festival, is Bel-Merodach, and on this occasion it was the custom for the other great gods of Babylonia to visit the head of the pantheon in the capital wherein his chief shrine lay. This was situated in the temple É-sagila (see p. 181). The meeting place of the deities was called Ubšukina—a counterpart and namesake of the heavenly meeting-place wherein their divine feasts took place. The following is a description of the ceremonies which were performed at the shrine of Merodach at Babylon:

"The gods, all of them—the gods of Borsippa, Cuthah, Kiš, and the gods of the cities, all, to take the hands of Kayanu, the great lord Merodach, will go to Babylon, and with him, at the New-Year festival, in the holy place of the King (*i.e.*, Merodach himself), will offer a gift before him. As for that day, on its appearance, Anu and Ellila will go from Erech and Nippur to Babylon to take the hands of Kayanu-Bēl, and will march in procession with him. To the temple of offerings all the great gods will go together to Babylon."

The tablet which gives these instructions also seems to detail the reason why the ceremony was performed—it was apparently to be present when Merodach was represented as going down to the prison where the captive gods, who, at the Creation, had resisted the gods of heaven, were confined. There Merodach was regarded as going, opening the gates of the prison, and comforting them. The expression here used is a very interesting one, for it reads *inaš réssunu*, "he raiseth their head," and it is apparently owing to this ceremony that the Temple of Belus was called É-sagila, "the house of head-raising," for it was there that "the merciful Merodach" became reconciled to the gods who had been his enemies. An unsuspected beauty in the Legend of Merodach here meets us.

From this inscription it would seem that the gods of Sippar,

Cuthah, and Kiš ought to have taken part in this ceremony, whereas the "Annalistic Tablet" mentions the gods of Amarda or Marad, those of Hursag-kalama, and the gods of Akkad (northern Babylonia) who were "under the wind and over the wind" as having entered the city, but not the gods of Borsippa, Cuthah, and Sippar. It was probably in this that Nabonidus went astray—it was not that he took the deities to Babylon, but that he took the wrong ones—gods whom he ought not to have taken, including many whom the scribe does not name. It was on account of this that evil overtook the city and the land, in the opinion of the Babylonians.

The name of Cyrus's general is given in the Annalistic inscription as Gubaru or Uğbaru—variants which suggest that the Babylonians really pronounced the name as *G'baru*. It will be noticed that he is called "Governor of Gutiu<sup>m</sup>," a portion of Media, and it is therefore safe to say that he was a Mede. The Darius who took Babylon in the account in the Book of Daniel was also a Mede—the two men, therefore, would seem to have been one and the same. Both took Babylon, and both appointed governors in Babylonia (though in this text the number given in Daniel—120—is not stated) afterwards. They may both be identified with other people, but that Gubaru or Uğbaru is the "Darius the Mede" of Daniel, is a conclusion from which there is no escape.

One of the most important statements in this noteworthy inscription is that referring to the Temple of Belus, Ē-sagila, in lines 16–18. There we find a mention of certain *tukkume* of Gutiu<sup>m</sup> or Media (with the character for leather before the word) having shut the gates of Ē-sagila—*Babani ša Ē-saggil upah̄hir*—and apparently in consequence of that *baṭla ša mimma ina Ē-saggil u ēkurāti ūl iššakin*, "loss of anything in Ē-sagila and the temples was not made." As we know, there was a considerable amount of valuable property in the temple, and measures for its due protection had apparently been taken—a stroke of policy which evidently impressed the Babylonians, and did not a little to reconcile them to Persian rule. The conqueror had preserved the treasures of their great sanctuary intact—a thing which no conqueror had probably ever done before—and they found him worthy of their confidence. Though only a governor and commander-in-chief of the Persian forces, he had the power and authority of a king, and this is the title which Daniel gives Darius the Mede.

It was not until four months later—the 3rd of Marcheswan,

that Cyrus entered Babylon, and was met by the *harinē*, which I have doubtfully rendered as deputations—the rendering demanded, apparently, by the context. It is noteworthy that Belshazzar was killed a week after the arrival of Cyrus at Babylon, but the honour of the capture of the inner city or citadel belongs to Gobryas. Though Cyrus had no hand in the operations, it is probable that the attack was only decided on after consultation with him—as for the deputations, they evidently knew that it was Cyrus who was king, and that everything depended upon him.

As Nabonidus had been captured, Belshazzar, his son, became king in the eyes of the Babylonians, and is rightly so regarded in Daniel—indeed, it is not improbable that he had been associated with his father on the throne for many years; hence, as has been often pointed out, the appointment of Daniel, by Belshazzar, as “the third ruler in the kingdom.” Note, also, that this appointment on the part of Belshazzar implies that he regarded his father as being still alive, and still virtual head of the state. Daniel, however, was fully aware of the precarious position of his royal master, shut up there in the inner city, or in the citadel, with the Medo-Persian army at his gates, and the answer which he is stated to have given is not one which we should regard as altogether respectful. “Let thy gifts be to thyself, and give thy rewards to another,” was the preface to his interpretation of the handwriting. Though we have much to learn about this historical event, so far all the records fit well in together. Babylon was taken, as the Babylonian record says, without fighting, but “the city of the king’s house” still held out. It was to gain this that the army of Cyrus entered by the drained river-bed, and it was there that the last stand of the Babylonians took place.

#### NOTES.

P. 167. For a translation of the Semitic Creation-Story, see the *Journal of the Victoria Institute*, 1903, pp. 17–56.

P. 168. Dr. Poebel’s description appeared in the *Philadelphia Museum Journal* for June, 1913.

P. 169. The concluding lines of the *Daily Telegraph* fragment quoted are, as far as they are preserved, as follows:—

7. . . . all the denizens, all of the creation . . . .
8. . . . . which in the assembly of my family . . . .
9. . . . . and Nin-igi-azaga . . . .
10. . . . . the assembly of the denizens was glorious

11. . . . all the . . . . .

The "glory" of the "denizens" would correspond with the expression "very good" in Genesis i. Note, however, that this is a version of the gods' Creation, not Tiawath's.

P. 171. *Ziugiddu*. If I have read the characters shown by the half-tone blocks published by Dr. Arno Poebel (*Philadelphia Museum Journal* for June, 1913) aright, this name of the Babylonian Noah is written with the characters , *Zi-û-giddu*, "Being + day + long."

Concerning him, Dr. Poebel says that he was a *pašišu*-priest of Enki (the god *Êa*), daily and constantly in the service of his god. To requite him for his piety, Enki tells him that, at the request of Enlil (the older Bel), the gods had resolved "to destroy the seed of mankind." *Zi-û-giddu* thereupon—this part, however, is broken away—builds a great boat and places thereon all kinds of animals. The storm rages for seven days and seven nights, after which the sun appears again, and when its light shines into the vessel the patriarch sacrifices an ox and a sheep. In the end, *Zi-û-giddu* worships before Enlil, whose anger against men had now abated, for Enlil says: "Life like a god I give to him (*?ti dingira-gime munnašummu*), an eternal soul like a god (*zi daîr dingira-gime*) I create for him."

Immortality was therefore regarded as having been conferred upon the Babylonian Noah—possibly, also, upon his descendants. *Zi-û-giddu* thus became "the being of everlasting day"—the gods' eternity.

P. 171. In the version which the Babylonian Noah (*Utnapištîm*) related to Gilgameš, his sacrifice was of the produce of the earth.

P. 173. It must have been from this record that Berosus obtained the material for the history of the world, now lost.

Professor Hilprecht's notes upon the list of kings will be found in *The Babylonian Expedition of the University of Pennsylvania*, Series A : Cuneiform Texts, vol. xx, part 1, p. 46, and plates 30 and XV.

P. 174. Professor Scheil's description of the Chronological tablet was published in the *Comptes Rendus de l'Académie des Inscriptions et Belles Lettres* for the year named. Mr. George Smith's paper appeared in the *Transactions of the Society of Biblical Archaeology*, vol. iii, p. 361 ff. (1874).

P. 175. The dynasty of the Kassites (Cossaeans) ruled from about 1780 to 1210 B.C.

P. 175. "Prince Mastema" is one of the names of Satan in Rabbinical writings.

P. 177. If the rendering at the end of the first paragraph here be correct, the seeding-plough was in use before 2000 B.C.

P. 177. Among the new royal and other names revealed by the tablets from Jokha may be mentioned *Libanuk-šabaš*, viceroy of Marhašu; *Habalul*, viceroy of Adab or Udab; *Nišili<sup>m</sup>*, viceroy of

Tutula; *Ibdati*, viceroy of Kubla; and *Hulibar*, viceroy of Tahtahuni. Among Dungi's sons were *Sur-Enzu* and *Ištar-il-šu*; and *Šu-Sin*, grandson of Dungi, had a son named *Enim-Nannar*. All these were of the time of the dynasty of Ur, about 2300 B.C.

P. 178. The tablets here referred to form part of the collection of Mr. Harding Smith.

P. 185. The lowest stage or plinth of  $\hat{\text{E}}\text{-temen-anki}$  (the Tower of Babylon) measures, according to the scale, about 95 metres (about 312 feet). This amounts to 300 "enlarged feet" (Babylonian) in Dieulafoy's scheme. George Smith calculated that the height equalled the width of the base, in which case it measured the same, 312 feet. M. Dieulafoy, however, makes it to have measured about 250 feet in all, above the level of the plain. But it is admitted that the height of the Tower is very uncertain, and modifications of the estimates thereof may be expected.

P. 185. The friend to whom I owe the slides referred to is Mr. W. L. Nash, L.R.C.P., Secretary of the Society of Biblical Archaeology.

P. 186. Various readings of the Aramaic form of the name transcribed as *Anušat* by Pognon have been suggested, among them being my own and Professor Prince's (independently argued) *Enn-rēštū*, "primæval Lord," or the like. Hugo Radau reads *En-usāti*, "lord of healing," whilst others favour *En-arišti*, *En-maštu*, etc. The deity in question was one of the gods of war, and is generally called *Ninip*, though *Nirig* is also a possible reading. For details concerning his character, see the *Proceedings of the Society of Biblical Archaeology*, December, 1906, pp. 270 ff. Interesting additions might now be made to the legends about him translated in that paper.

#### DISCUSSION.

The CHAIRMAN, in thanking the Lecturer, referred to the great difficulty in interpreting the cuneiform inscriptions, and said how necessary it was that there should be a succession of great scholars, like the Lecturer, to study them. He welcomed the references to the late George Smith, and to the Hibbert lectures which Professor Sayce delivered in 1887. For himself, he found the slides which had been exhibited of absorbing interest, especially those relating to the Tower of Babylon.

A LADY asked whether there was any special significance in the Tower of Babylon; was it unique, or were there many such?

The Rev. J. J. B. COLES said that the shape of the altar shown on one of the slides had struck him as being exactly like the altars

shown in the astronomical figures on boundary stones. He asked for information as to the substitution of the constellation Libra for that of the Altar in the Zodiac. He believed that the modern zodiacal Libra was spurious and was introduced by Egyptian influences.

Mr. M. L. ROUSE said that at the great Palestine Exhibition in 1907 a seed-plough of the same kind as that portrayed in these most ancient inscriptions was driven by a Bedouin upon a model field; in surprise he asked the driver whether wheat was not usually sown broadcast in the East, but received the answer that many other seeds were sown broadcast, but wheat was always sown through this leather hopper and tube set behind the ploughshare.

Until that evening he had not known which of the two great towers lying respectively in the heart of the ruins of Babylon and at Birs Nimrud was the original Tower of Babel, the former corresponding to É-Sagila, or Temple of the Lofty Head, the latter to É-Zida, or Temple of Life; he now knew that it was the former.

He noted that according to this latest found Deluge Story the God Ea was constantly served by Ziugiddu (or Noah) before the Deluge, and since, in the Gisdhubar story it was Ea who warned the good man to prepare the ship of deliverance, was not the name *Ea* really a variant of *Jah*, the shorter alternative Hebrew name for the true God?

Colonel VAN SOMEREN urged that if the Tower of Babylon was only 200 feet high, it could not fulfil the Biblical description of "reaching up to heaven." There was no verb in the Hebrew at all. He had read that the real meaning was that the Tower was an observatory; perhaps with a planisphere or map of the heavens laid out at the top? Could the Lecturer enlighten them on this point?

The Rev. F. A. JONES observed that the period chiefly dealt with by Dr. Pinches was an intensely interesting one, it being so close to that represented in Scripture as immediately following the Flood. It was remarkable how entirely the account of Berosus was confirmed, even in its chronology, by the contemporary inscriptions already deciphered, and we were probably on the eve of discoveries which would elucidate the strange period he gave as 33,091 years, which read as days was 91 years, and so read made his chronology practically the same as that of Genesis.

The ruins at Nippur were reported by Haines as going down to virgin soil 33 feet below the present level of the plain, and Mr. Jones said he could only understand that on the assumption that the level of the plain was raised by a flood; if so the lowest Ziggurat was antediluvian: a conclusion to which several other facts in that connection pointed.

The Rev. A. IRVING, B.A., D.Sc., would only detain the meeting at that late hour with one or two brief remarks (suggested by his own recent work\*) on the most valuable paper that they had just listened to. One point that especially struck him was the bold perspective, in which it tended to place Abraham as an *historical personage*, in the face of much speculation of late years as to the mythical character of the Patriarchs. He enquired if the term "cattle" (p. 179) included the *horse*, that animal being never mentioned in the Genesis enumerations of the possessions of the Patriarch, used mostly for war purposes (chiefly by the Egyptians) in those Pentateuchal times [and ignored in the Tenth Commandment].† Might it be possible that the Babylonian term "black-headed" (p. 168) had some reference to traditions or survivals of the negroid (?) Neolithic people of the Grimaldi Race?‡ And was it possible to fill in hypothetically the gap (p. 169) so as to read "denizens of [the caves]"? He desired to associate himself with Dr. Pinches' "contention" in the paragraph: "How early the date . . . original scheme" (pp. 170, 171). It seems to suggest an Abrahamic inspiration for the Creation Story of Genesis!

On the motion of the CHAIRMAN, the Meeting returned a hearty vote of thanks to the Lecturer, and to the Secretary of the Society of Biblical Archaeology, who had furnished some of the slides by which the Lecture had been illustrated.

The LECTURER thanked the Meeting for the appreciative attention which had been given him, and for the cordial vote of thanks. In reply to the first question, he would say that towers like that

\* See *Reports of the British Association* for the years 1910, 1911, 1913.

† Cf. Job xxxix, 19 ff. The wild horse was known long before, and had probably been domesticated by the Neolithic men. Its immediate ancestry dates back to the Pliocene Period, in which remains of several species of *Equus* are well known.

‡ As described by Professor Marcellin Boule from the Grimaldi grottoes near Mentone. Any clue, which seems to bring us on Biblical lines into touch with pre-Adamite races, is of interest.

of Babylon were not rare in Babylonia and Assyria, and they probably varied in size with the importance of the place and the consequent opulence or poverty of the religious foundation therein. Answering Dr. Coles, he stated that it seemed to him hardly likely that Libra was originally the picture of an altar, though altars were found on the boundary-stones. In the only place where the name was spelled out it appeared as *Zilanit*, which was regarded as the word for "scales." (As this is of late date, it may have been introduced, as suggested, by the Egyptians.) In reply to Mr. Rouse, he was glad of the testimony that the seeding-device, of which he had shown a picture, was still used in the country. The lecturer regretted not having made himself clear as to É-sagila and É-zida. É-sagila was not the tower, but the great temple of Merodach connected with the Tower in Babylon, which seems to have been called "The House of the Foundation of Heaven and Earth." É-zida was the "Everlasting House" at Borsippa, and the tower in connection with it was called É-urwe-imina-an-ki, "the House of the 7 regions of Heaven and Earth," symbolizing the seven planets (including the sun and moon). The meaning of É-sagila was "head-raising," not, apparently, in the sense of a tall structure, but as the place where the people, or the hostile gods of old (see p. 188), were comforted—"lifted up" from their downcast state. Both É-sagila and É-zida had been restored by Nebuchadrezzar. Mr. Rouse had suggested that Éa (the name of the god of the waters and of deep wisdom) was a variant of Jah (or its original form); but this the lecturer hesitated to confirm, notwithstanding that his friend, Professor Fritz Hommel (*Journal of the Victoria Institute*, 1895, p. 36) had already pointed out the likeness. (Naturally there is also the question of an ancient identification of two names originally distinct to be considered.) Colonel Van Someren was right as to the Tower of Babylon not being very high (see p. 192, note to p. 184). A tower, whose top "was in the heavens," simply meant, as has already been recognized, a very high tower. Whether there was a planisphere at the top or not the lecturer could not say, but he thought it unlikely, though small planispheres of baked clay existed. The house at the top was the abode of the god Merodach. Replying to the Rev. F. A. Jones, the antiquity of the ruins at Niffer had been estimated by an examination of the accumulations as dating from about 10,000

years ago, but this was naturally open to correction, and the high date of Nabonidus for Narâm-Sin (3,200 years before his time) is regarded by Assyriologists as being about 1,000 years too early. Referring to Dr. Irving's suggestion that the "black-headed people" had their origin in traditions of negroid (?) neolithic cave-dwellers, the lecturer said that was a matter of opinion. "Men of the black head" was a description of the Babylonians themselves—in contradistinction thereto certain Gutian (Median) slaves were described as being "fair." The word translated "denizens" (*nam-mašše*)—see p. 169—occurs in the fifth line of the bilingual story of the Creation, apparently as indicating dwellers in cities; and it is noteworthy that the Sumerian equivalent is written *adam*—see the *Journal of the Royal Asiatic Society* for 1891, pp. 402 and 403. In early lists of domestic animals asses were often referred to, but never horses, which seem to have become fairly well known to the Babylonians 2,000 years B.C. (The tablets referred to on p. 179 are much later than this, but there is no mention of horses.)

The Meeting adjourned at 6.30 p.m.

---

#### LATER NOTE BY THE LECTURER.

Since the writing of the note on Ziugiddu (p. 191), Dr. S. Langdon has published his reading of the name,\* which he gives as *Zid-ud-giddu*, for *Ud-zid-giddu*, and translates "long is the breath of life." This is a fuller transcription of the name as I have read it (following Poebel). The rendering "being of everlasting day," however (p. 191), seems to me to be worthy of consideration.

---

\* *Proceedings of the Society of Biblical Archaeology*, June, 1914, p. 190.

556TH ORDINARY GENERAL MEETING,  
HELD IN THE ROOMS OF THE INSTITUTE ON MONDAY,  
MAY 4TH, 1914, AT 4.30 P.M.

THE REV. H. J. R. MARSTON, M.A., TOOK THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

The SECRETARY announced the election of the two following Associates:—Mr. John Wood and Mr. Francis Chatillon Danson.

The CHAIRMAN then introduced Prof. F. F. Roget, Lecturer on English Language and Literature in the University of Geneva, and called upon him to deliver his Address on “Frederic Godet, the greatest of Swiss theologians after Calvin.”

---

*FREDERIC GODET, SWISS DIVINE, AND TUTOR  
TO FREDERICK THE NOBLE.* BY PROF. F. F.  
ROGET.

**F**RÉDÉRIC GODET was born in 1812, and died in 1900, when eighty-eight years old.

The length of his life, and the period of the nineteenth century over which it extended, made him throughout the span of those years a contemporary of Ernest Naville, the “spiritualistic” philosopher and divine of Geneva, whose portrait, course of life, and doctrine, we brought before the Victoria Institute, two years ago in the same month of May.

A complete picture of the philosophic thought, emanating, in conjunction with theology, from the French-speaking parts of Switzerland in the nineteenth century, would demand that we should add to Naville and Godet their compeers Alex. Vinet, Charles Secretan, François Roget and Frederic Amiel. This we hope to do with the help of time. We believe that there is in London an editor who understands the importance of the contribution to philosophy and theology of the Protestant Churches in Romance Switzerland, and is prepared to publish, for the benefit of the English-reading public, such accounts as those which are now being placed before you.

I wish particularly to thank the Victoria Institute for the facility thus given me, which I am confident they will have no occasion to regret.

The Protestants of Romance Switzerland are in every way akin to the English and Scotch Protestants. The national

characteristics of Protestantism in Geneva, Lausanne and Neuchâtel are those which have developed in the United Kingdom. I may even say that some of the best expressions of Presbyterian, and even Church of England, doctrine have been formed in Swiss minds.

The remarkable popularity of Naville, Godet, Vinet, Secretan and Amiel among the English-reading public has been made obvious by the demand for translations of their works, translations which have gone through many editions and are less in request now only in proportion as the newer literature presses them back, and as a younger generation loses sight of them. As for François Roget's book (*De Constantin à Grégoire le Grand*) on the Establishment of the Christian (Roman) Church from Constantine to Gregory the Great, it remains the standard work on the secularisation of Christianity.

Frederic Godet was born in Neuchâtel. This should be noted, as his whole life and work bears the imprint of his "nativity." The Godets were an ancient, though by no means socially eminent stock.

Neuchâtel was still a Principality in the dependency of the Kings of Prussia at the moment of Frederic Godet's birth, though the Principality owed temporary allegiance to Berthier, one of Napoleon Bonaparte's generals: a mere mushroom prince. So the child was born a Prussian Royalist, baptized a Protestant—in the Calvinistic Faith—and educated as a Swiss in a Church which was not quite a State Church, and bore the stamp of fidelity to the Monarchy of Prussia rather than to the Republicanism of Switzerland.

This atmosphere was full of contradictions. Yet the community of 100,000 Neuchâtelois who had breathed it since 1707 had grown into a most harmonious, enlightened and prosperous commonwealth of simple-minded men, distinguished by public merits and private virtues.

Yet the ambiguousness of this strange social unit "told" upon Godet and is reflected in every step of his career. But his powerful personality subdued those manifold elements. A minister, he remained faithful to his flock through constitutional changes in the Church; a professor of divinity, he remained faithful to his students, keeping them anchored to the evangelical conception of the Old and New Testaments, through every change in exegesis; a tutor to a most eminent scion of the Prussian House, he retained the absolute confidence of his pupil from early years to the hour of death. Entrusted with his tutorial office as a Royalist, he none the less accepted

as from God the Republican Government which at last severed every tie of Neuchâtel with the House of Prussia.

The secret of this unity must be looked for in Godet's humility, though his was a firm and proud nature, we might even say exacting and imperious.

He was endowed with a lofty and piercing intelligence. Impatience at the dullness or weakness of others should have been one of its exterior manifestations. Those of my hearers who remember Gladstone will best see my meaning. The resemblance between Gladstone and Godet was not limited to the physical likeness in features, bearing and oratorical expression, which struck repeatedly those who knew both. They were alike in character, in self-confidence. They were tractable—and intractable—to the same degree, I may also say on the same points.

From the time he started upon his career, the young Churchman—I mean Godet—fixed his eye upon the enemy which in him most required curbing: pride. For pride he strenuously fought to substitute righteousness—not the saintliness of the priest or monk or ascetic, but the righteousness of a plain, straight man, who was destined to go through life as a teacher, husband, father, citizen, with the additional responsibility of being a clergyman. He "took himself down" daily, from the moment he had outgrown the crude ambitions and rude self-assertions of boyhood. For those motive powers of untaught youth the young minister substituted sincerity in self-examination and humility, but without any degradation of self before the tribunal of God, since men are made after His image and should swell with helpful exaltation in the fight waged against blind pride.

From the age of eighteen, he was intended for the Ministry. His mind, then already, showed the degree of maturity expected only from men ten years older—a not unusual occurrence among such strongly intellectualised circles as those which the persistent emigration of gifted Protestants from France had established, by a kind of selection, in the French-speaking Cantons of Geneva, Vaud and Neuchâtel. Early he took up an important share in tuitional work at the school for girls which his widowed mother kept to support her family and to repay her late husband's debts, debts, by the way, that were quite honourably contracted.

Called to Paris in 1830 by his brother for a short holiday after the *Journées de Juillet*, which violently closed the reign of Charles X., he saw Paris in a still rather disturbed condition.

The gay capital made upon him the impression which is usual with Swiss Protestants: admiration, but an instinctive distrust of French brilliancy, of the Parisian rashness of thought and indifference to the true conditions of Christian manliness. He returned from Paris enlightened and strengthened.

At that time there was no regular School of Divinity at Neuchâtel. Candidates for the Ministry were principally self-taught and depended upon their own initiative for the organization of their studies. They got their lessons in Hebrew from an expert who was none the less proficient for not being a "Professor." He received them informally at 5 o'clock before breakfast for, said he, "at a less early hour those young people would break up my morning." Those apparently ill-organized studies bore excellent fruit. There were in Neuchâtel as many men learned in the ancient languages and in the branches of philosophy and divinity as would have sufficed to man two complete Colleges or Faculties.

The lodestar of Godet's mind and soul began to shine down upon him amidst those influences. His opinions were then most uncertain, but his faith in the *divinity of the Bible* was entire. He owed his life-long security of religious tenure neither to Apologetics, nor to Dogmatics, but to Experience.

Philosophy, he found, runs into theology, for who can relate reason to the one necessary thing, unless it be by pondering over the fruits of Christian experience? It is a matter of reaching *Knowledge* through *Life*. And he prayed that, while judging himself in that light, he might abstain from judging others. There is no instance on record of Godet's having *judged* others, though instances abound of his having told his mind, but never with any reflection upon character or motives. Having to steer his way and that of the Church through considerable political and ecclesiastical disturbances, his fairness and gentleness preserved for him the love and admiration of all.

In 1831, Godet tasted of military life. We have seen the same feature in Naville. There are indeed few divines in Switzerland who have not, in their youth, served in the ranks. The case of Godet was that of a Loyalist called to arms to quell a Nationalist rebellion.

In spite of the example set by Paris, so-called Liberal and Republican opinion, resting upon Swiss support, had not yet grown strong enough in Neuchâtel to defeat the Royalistic tradition. Godet found himself called out in support of the existing Government, which was not Swiss, but locally autonomous in the Republican form under Prussian suzerainty.

Yet neither was Godet actually a Prussian subject. Indeed Neuchâtel had been joined to the Swiss Confederation in 1815 by an international compact to which Prussia was a party, to secure the Principality against the renewal of any French attempt at annexation, and now the attachment to Switzerland was gradually encroaching upon the more ancient and distant connection with Potsdam and Berlin.

But, as long as the Government should remain in the hands of magistrates loyal to Prussia, Godet would follow them, since Prussia, when contributing to the inclusion of Neuchâtel in the Swiss Confederation, had not abandoned any of its rights upon the internal regime of the new Canton.

The hour for the superseding of the Prussian Loyalists at the head of the State was not to strike for some years yet.

For Godet, when it should come, the passage from Prussian suzerainty to Swiss citizenship would not wear an aspect of public law only or of foreign policy alone. It would involve his personal conscience in consequence of his oath of allegiance.

The sacredness of the oath has always played a very great part in Swiss political and military fidelity. The burgesses of Neuchâtel were in the peculiar situation of having contracted a double oath : one of fidelity to the Kings of Prussia and another of fidelity to the Swiss Confederation. As a writer on this public topic, the young soldier Godet declared roundly that both pledges must be kept. There are not oaths and oaths, he said : an honourable man has one word only. The conscience of Godet as a Christian and a gentleman was here severely and repeatedly tested. Need we add that when this vexed question of the double oath came finally to be settled to the detriment of Prussia, Godet, who viewed it as falling within the purview of individual and personal discretion—because it was for him a moral and religious issue—found in the House of Prussia gentlemen ready to meet him half-way because they were Christian and conscientious like himself.

Why did Godet, in 1832, choose Berlin when he made up his mind to prosecute philosophical and theological studies at a University ? It was quite natural that young men from Neuchâtel, belonging to what we now like to call *les classes dirigeantes* (and which were then more strictly called the political classes, because they were the recruiting ground for Governors, Magistrates, Officers and Officials, Lawyers and Divines), should seek their learning at the seat of Royalty. But it was also pretty plain that, unless he went to Scotland (as

many young Swiss used to do, and are still in the habit of doing, principally in order to complete their theological studies in a congenial atmosphere), Lutheran Germany must exercise a greater attraction upon a Protestant than France, which could not but appear, from Godet's point of view, as being too libertine, too Roman, too revolutionary or too profane: too libertine in morals, too Roman in religion, too revolutionary in politics, too profane in philosophy.

I am prepared to say that, had there been, at Oxford or Cambridge, a University, College or Faculty of Theology, set out on German lines, but in the hands of the Church of England, whose recognised repository of doctrine it might have been, such men as Godet, Naville, Vinet, and Roget would have repaired to this place willingly to complete their studies.

In the political and ecclesiastic relations belonging to each of these in Church or State, their conception of Christianity, their public doctrine and conduct showed a striking agreement with the doctrine and conduct of English Churchmen in like circumstances in their own Church.

The Swiss divines mentioned above, though complete strangers to the "internals" of the Church of England, such as the form of worship and the episcopacy, were led to the same conception as most of the Anglican clergy on the relations of the Church to the Gospels and Old Testament on one hand, and to the State on the other hand.

Godet hardly visited England at all and knew but little English. He was a little more at home in Scotland. Yet English divines sought him out in his home quite as much as Scotch ministers. They read his translated works. His contributions to the religious Press of Britain were quite English in spirit and in tone. It is not open to doubt that the Swiss mind, however Calvinistic or Zwinglian it may have been before it grew up to its true identity, has shown itself throughout the nineteenth century to be nearer to the Anglican than to the Lutheran mind. This, I hope, will appear as I proceed, with the help here and there of a suitable illustration.

At Berlin, young Godet's first call was paid at the State Office for Neuchâtel affairs, just as a young Australian might pay his first London visit upon the agents for his colony in Victoria Street, Westminster.

The Neuchâtelois were among the most trusted servants of his Prussian Majesty. This traditional confidence is still reposed in some families by the Hohenzollern Emperors of Germany. The German Ambassador to St. Petersburg, for

instance, is a member of the de Pourtalès family. England can produce an example on all fours with this in the person of Sir Louis Mallet, whose Genevese ancestors show an unbroken line in the service of the English State through three generations.

It has been, throughout the nineteenth century, a habit with the Hohenzollerns—as with the Romanoffs—to look to the Protestant French-speaking Republics of Switzerland for tutors and governesses. The Hohenzollerns would naturally look to their faithful subjects in Neuchâtel, while the Romanoffs—be it said by the way—have, through five consecutive generations, been partly educated by gentlemen from Geneva or Lausanne, whom they cause to feel quite at home in orthodox and autocratic Russia.

To return to the Hohenzollerns, their leanings to Calvinism have been constant with the single exception of Frederick the Great. The present Emperor of Germany will tell you quite frankly that the form of worship in his household is Protestant. He misses no opportunity that offers in which to recall his Calvinistic collateral ancestry, in the persons of William the Silent and of Admiral Coligny. The Huguenot Church of Frankfort remains the most fashionable in the realm, and the names of its incumbents, now Correvon, and—when Godet passed there on his way to Berlin—Bonnet, Pilet, and Appia, have the true Protestant ring about them.

At Frankfort, Godet called upon a young governess from Neuchâtel, Caroline Vautravers, who, twelve years later, became his wife. Let us say at once that he married twice, his second wife being the governess of the orphan children. The mother of Mademoiselle Vautravers was herself governess to the Princesses Luise and Anna, daughters of Prince Charles—another of those trivial instances which show how willingly the Hohenzollerns applied to Neuchâtel for the kind of brain-stuff they wanted, whether in the schoolroom, the camp, or round the *tapis vert* of diplomacy.

A mind as firm as that of Godet would use his course of studies and his sojourn in a foreign capital to find out and determine his own bearings, rather than yield himself to the dominating influences to which he was now subjected.

We have said how he had seen, in Paris, much that he had noted down as evil. He foresaw, with some trembling, that his proposed three years in Berlin, too, must bring along for him intellectual and religious strife. So he had made up his mind that no external influence should shake, no personal

experience should weaken, no theory should undermine in him the sense he had formed of the gravity of sin. Such a pledge showed that with him the crisis in faith usual with young men reading for the Church would not turn upon the ordinary theme: scepticism. He thought that the sense of sin, which lays bare the core of one's Christianity, is the moral essence of all Christianity. It is an issue neither entirely emotional nor wholly intellectual. The conscience of Godet was extraordinarily exacting on this point and acutely alive to its ideal of righteousness: Jesus Christ.

For Godet, the touchstone of Christ's Divinity is to be looked for in His *conduct*. How to reduce to practice the divine saintliness of Christ's *human* life became the centre of Godet's religion, the test of his own moral life.

His reasoning was very simple. As related to His day, Christ must have been *absolutely* righteous. The Gospel Scriptures are authentic: consequently they are the repository of absolute righteousness. By the labour of our conscience we have to lay bare that righteousness, to transpose and apply it to our own lives. To fail in this is to fall into sin. Intellect, sentiment, and will, are all wanted for this effect: the recognition of the morality divine. All three are wanted to translate it into terms of life.

The religion of Godet is thus seen to be an intellectual, emotional, and volitional communion with the holiness of God; the test of faith to be conduct—a conduct practical, to which intellectual power, emotional power, and volitional power are contributory in the Christian individuals, as they were in the living Christ.

We need not hesitate a moment in describing this religion as aristocratic: the keener the intellect, the purer the emotions, the stronger the will, then the more perfect is the religion of the servant of Christ. It rests with the developing, the refining, and the sanctifying of the three spiritual parts of man on to complete conversion.

Conversion is a progressive religion, a moralising of life. It civilises as it Christianises.

But no pride, no self-love; only charity, humility, and self-surrender. The Christian who through superstition, fanaticism, intolerant zeal, bears witness to his convictions, then does so in a manner unfamiliar to Christ. With such Christians, authority usurps in the heart the place of conscience. In the efforts of conscience it is the moral guidance of reason that should shine foremost.

To continue in his own words : “ May I proffer no affirmation as long as I fail to be aware within myself of sufficient grounds for my contentions. May I rather dwell in doubt till God enlighten me. I shall thus best enlighten myself and be the means of bearing no false light for others. Conscience is nothing till it be tolerant, impersonal through love, as was Christ, who suffered rather than raise a material hand to prove His right. From the intellect theological knowledge should pass into life and into the heart. Thus a slave, ceasing to stoop before authority, may become an upright child confiding in the fatherhood. Conscience, drawing us on to the good, purifies by love ; and dragging us away from evil, purifies by stern rebuke.”

His mother, when he went to Berlin, had laid upon herself the burden of meeting his expenses ; but his prayer that he might be enabled to meet those himself was granted. He was offered some tuitional work in French. Dining on fivepence and being his own shoe-black he made both ends meet as long as his student days lasted.

Madame Godet was, however, soon drawn herself to the field of labour whither had gone her son. She was summoned, in 1834, to take care of the little Prince of Prussia, Frederick William, aged 3 years, who was to come to the throne for a few weeks, in 1888, as Frederick the Third, Second Emperor of Germany.

At that time (1834) Frederick William was not yet actually heir presumptive to the throne of Prussia. He became so in 1861 when his father was promoted to the throne by the death of Frederick William the Fourth, whose brother he was. The new King of Prussia was crowned first Emperor of Germany in 1871.

Frederic Godet naturally became a visitor at his mother's rooms in the Potsdam and Berlin residences of the Royal Family. The mother of the baby prince had occasion to see him. She formed views upon him for the time when her young son should have outgrown petticoat government. Meanwhile, and suspecting nothing, Frederic Godet left Berlin in 1835 and attended lectures at Bonn.

From that moment, his life became more and more closely woven into that of the Royal Family of Prussia, but at first only through his mother, who sent him amusing “ tit-bits ” about the baby boy in her charge. He remained quite unconscious of his own future connection with that family till the middle of 1838, when we find him, after undergoing his

first examinations at Neuchâtel, engaging in subordinate parish work as an ordained minister.

Trueness to conscience, even in its temporary and provisional phases of imperfect enlightenment in youth, he proposed then as a safeguard to those who were about to enter upon the studies he had painfully gone through, at such length, and with so much thoroughness. "Be ready," he admonishes the student of divinity, "to allow the truth of what strikes you as true, whatever it may be that strikes you as such, even should the sacrifice of half the Bible be the result. Sincerity, nothing but sincerity, let that be with you the whole measure of truth, *advienne que pourra.*"

"It is only since I made up my mind to this that I have studied with freedom and *impartiality*. The *foundations* of the Book remain firm, its kernel remains sound, however much may have to come off at the circumference. So let no human hand set a limit to your latitude. As for the reflex action of the Bible upon life, there is but one rule. Distinguish *two* purports in your reading. Either you read the Bible for edification or you read the Bible for scientific purposes. Keep each of those intents well apart from the other. When you read for edification do not allow your devoutness to pass into curiosity, scientific or critical. It is a most common occurrence that a poem—even the most spurious—may be morally elevating. I speak from experience. Fear not that your scientific examination of the Book will suffer from this apartness. To sever externally is often the way to join internally."

None clung more tenaciously than Godet to the authenticity of the Scriptures. Yet he would see the whole rejected on intellectual evidence—which is an eminently variable quantity even in one and the same mind—rather than fall into the moral error of believing prematurely. We shall see later how insistently he feared lest we should choose hastily our own way, instead of waiting for God's later and more patient way.

"The completion of faith should go hand in hand with the enlightenment of conscience, should even follow upon it, rather than precede it; lest we bring into the employment of faith unenlightened, powers with the exercise of which the most discreet conscience alone can be properly trusted."

To put it like Godet: in no man is the grace of God inactive. By an excess of words, and by too urgent entreaty, we may intercept its action. An atmosphere of confidence, of trust, a servant of God may create between Him and the object of his care, or may find it to exist. But he may also destroy it, or prevent

its appearance, and then what he may do or say is useless or worse than useless: nay positively injurious to the working of the Spirit of God. Godet would not have our initiative precede the time appointed by God. He would have us wait for Him and follow behind Him. Enoch, it is said, walked *with* God. To have walked ahead would have done no good. David, who wanted, was not allowed to build the temple, though God too wanted it, but Solomon was to build. So ask yourself, when about to build, whether you are David or Solomon. You may pride yourself on *venturing*, to the confusion of all human wisdom. But beware lest you run counter to divine wisdom too.

In June, 1838, came a letter from Prince William of Prussia, who purposed engaging Frederic Godet as a tutor to his son, then seven years old, and passing out of the care of Madame Godet into that of a military governor, assisted by a civil governor who was to be Frederic Godet. The appointment was for ten years, but, actually, did not extend beyond six, from the autumn of 1838 to the autumn of 1844.

The relations of Godet to his pupil, and later to his Royal, and, for a few weeks, Imperial, friend Frederick, would all by themselves fill a whole book. We do not think that the inwardness of these relations has yet been appreciated to any degree. For one thing, the life of Frederic Godet by his son Philippe was not published till last year (1913), and in that book alone could it be expected that the relations in question would be comprehensively surveyed, as from Godet's side.

On the other hand, that is from the Prussian point of view, the public part played by the Crown Prince Frederick was so great as to cast into the shade his personal and intimate association of heart and soul with his tutor. This association was unbroken from the childhood of Frederick to the hour of death, and was kept up by the members of the Imperial family to the last hours of Godet himself; so from 1838 to 1888 in the case of the pupil, and, in the case of the tutor on to 1900, Augusta, the Emperor's mother, and the present Emperor William, her grandson, showed to the end their interest in Godet.

There are three points in this life-long association which clothe it with the most exceptional interest. The first is the personality of Godet, which gave it its true value. The second is the temperament of his pupil and the disposition of the Hohenzollern family, whose homely, gentle manliness gave the opportunity wanted for such a friendship. The third is the

magnificent public part which fell to the Hohenzollerns to play in the history of Europe, and which gave its characteristic to the nineteenth century—a part in which their earnestness and quietness fitted in so efficiently and one of the secret mainsprings of which appears so plainly in the correspondence of the Crown Prince with his former tutor.

Should we seek an illustration from a parallel class of grandeur, by comparing the Bonapartes with the Hohenzollerns, would it for a single instant be tenable that Napoleon the First might have had Frederic Godet for a friend? No.

We venture to say that this impossibility throws a great deal of light upon the opposite fortunes of those families which were pitted against each other in a way which seemed to confer all the chances upon the Bonapartes, first after Jena, and then from 1850 up to Sedan, in 1870.

Godet could be a friend to rulers who had a conscience, both public and private. He could not have found in either Napoleon this fundamental requirement for the just and equal friendship of a Protestant clergyman with a ruler of men. There is no small lesson in this apparently insignificant lifelong friendship of a plain Protestant clergyman with the Prussian House. To my mind, therein is contained the explanation of the rise of Germany above France. The plain clergyman had a conscience, a commanding sense of the gravity of sin. He could associate with the Royal House in which a like conscience and sense were alive.

While he trod busily along his own little path of life, the Hohenzollerns kept clear of the dreadful sin of pride, which ruined Napoleon the First, and of conceit, which ended Napoleon the Third. The quietly *bourgeois*—or rather humbly Christian—conscience of the Hohenzollerns proved in their hands an absolutely reliable Empire-building instrument. The downfall of the Bonapartes before the Hohenzollerns showed earthly power gathering round those to whom to acknowledge the law of conscience was a duty to God.

By none was the allegiance of conscience to Christianity more clearly expressed in State affairs than by the Prince whom the Germans styled Friedrich der Gütige and the English Frederick the Noble. His tragic end, before he could actually reign, found him full of Christian resignation at a moment when he might have been most bitterly resentful. In the story of Godet's life is reflected, as in a side-mirror, the history of that soul, making this plain that the nearest support it had in this world, it found in the firm, clear spirit of the Neuchâtel

minister who had informed it in childhood. Were it consistent with the present monograph, we should like to show in detail how the association of tutor and pupil took effect, developed into an enduring relationship, and passes out of our sight only when the curtain was drawn over their earthly lives.

The connection with the young prince first appears on page 107 of a book of some 550 pages—the book we have spoken of—and runs right through it to the end, when the widow and mother of the dead Emperor are seen making daily enquiries of the last moments of his tutor, then 88 years old.

We have said that the prince was also placed under the authority of a military governor. This authority seems to have been quite shadowy and distant, as General Unruh—whose name has not a very propitious sound—was in weak health. So it came about, more unavoidably than purposely, that Godet dominated the situation for several years. When, however, the prince was older and General Unruh thought he would make his presence felt, he seems to have failed to win the heart of his pupil.

Under such circumstances it cannot be said that either governor was at fault, but the military tutor none the less conceived some jealousy of the civilian. The latter, after an appeal or two to the parental and royal authority, though most heartily supported and furnished with a full endorsement of his conduct, realised that the age of the prince—he was then 13 years old—justified the granting of a more important function to the military element. This was done in 1844. Godet handed his office over to another civil tutor, the famous historian Georg Curtius. Then General Felgermann, who had succeeded General Unruh, had the opportunity in which to gain for himself a share in the attention and affection of the prince. But the heart of the prince somehow remained with the “Neuchâtelois” and his conscience, too, continued to seek nurture from the “Man of God.”

The prince did not work alone, but had an *émule*, a fellow pupil, in the person of young Rodolph von Zastrow, whose father had filled the office of governor in the principality of Neuchâtel.

The tutor's bed was placed between those of his pupils, so near that the prince, an affectionate and clinging nature, would seek the hand of his teacher at night. The children rose at six. The prince's mother came every morning at ten o'clock with her needlework to take her share of the instruction given. The whole savours of plain, well-ordered home life.

We shall not say that the young prince never kicked over the traces. He had his bad days, fits of temper and unruly outbursts. But by nature he was full of consideration for others, tender-hearted, reposing easily his confidence in those about him. He could be slow and dreamy over his work, even absent-minded, his well-developed gift of imagination enticing him away from his desk to the realms of fancy. The tutor would then say: "Where are you, prince?" and the prince would answer: "At Weimar," or wherever his memory, reminiscent of brilliant scenes of pleasure or of solemn functions of State, had dragged his mind away from his lesson.

He had a natural leaning to piety, was of a practical disposition, with no particular partiality to learning, his judgment was calm and sound, and he showed much self-possession. A lively imagination and a cool reasoning power, much gentleness overlaying, as it were, much latent energy, an unswerving sense of duty, would complete a description of his character as a boy.

When he grew into a man he developed a character of great energy in the constant will to do right, which dominated his career from childhood to his last and supreme hour.

"He served God," says Godet, "under the form of the good which could be done on every occasion."

The religion of the Crown Prince, like that of Godet, was the religion of moral obligation in the sight of God. This affinity between their natures explains the friendship of forty-four years' duration which followed upon the termination of Godet's tutorship at the Court.

Godet confesses that he twice felt called upon to apply the rod to his pupil, driven to that extremity by one of those instances of rebellion when a young tutor is at a loss to know the right thing to do. As the use of violence was expressly forbidden him by the father, Godet felt he must at once report himself, with all particulars. He was granted a bill of indemnity. Godet admits that he misread the cause of the child's rebellion, which was not directed against him. The whipping brought on tears, and all was made right by this solvent. But, under the circumstances, the child's passion might have been fired with a sense of injustice and then the rash tutor would have found that he had gambled away his pupil's affection.

And yet this is the man whose watchword was patience, who said that to know how to *wait* is, perhaps, more important than to know how to *do*. "A steady flame amid embers is worth

more than the quick fire of a revival. To reap a sudden reward is not good for the heart. Instead of quickening it and winning it slowly to God, it lulls it to sleep after a short excitement."

One of the most solemn moments in the childhood of Godet's pupil was at the death, in June, 1840, of his grandfather, the King Frederick William the Third, so well served by Blücher.

It should be said in praise of the Prussian Court that nothing pompous came then to offend the eye of the child or disturb his *naïveté*.

He walked out of the palace of the dead ruler, holding his tutor by the hand, and so they strolled about in the Tiergarten. It was a fine evening. One may imagine with what golden opportunities so much simplicity furnished the child for the outpouring of his feelings into the sympathetic ear of the young minister.

"What was faith?" the young tutor asked himself, after such talks with a guileless little boy. The answer came that "faith, to have power to save, must be an exchange of life between us and Christ. We make Him a gift of our sins, He renounces the exercise of His justice. By the first act in this exchange we make over to him what is ours: sin. By the second act, we make ours that which belongs to Him: justice. This mysterious exchange, by which God foregoes His justice for the cleansing of a sinner, is the secret of the salvation that takes place in the depths of the soul working out its repentance. From this perpetually renewed and ever-recurrent exchange of grace and sin, issues, as from a bubbling spring, the stream of a Christian life."

We gain here our next profound insight into Godet's conception of salvation. As a philosopher and divine he had to conceive salvation intellectually. His mind conceived it, we see, almost as a legal transaction. That Godet had the same sense of law as a true Calvinist—which sense should not be confused with the blind dictates so often mistaken for the law given from above—will appear from his whole life as we mark its onward steps, and when we look backward upon his career as it comes nearer to completion. That he was a "moralist," who found the seal of divinity impressed in man upon the conscience striving to grasp the divine righteousness of the Man Jesus, has already been illustrated.

Now we see all the *common honesty* of his soul, if I may use such a term. To be saved, man has to keep the bargain. He should strive to give to the justice of God no object. This is

not done by weak melting into tears and unfruitful supplication. A blissful contemplation of the perfections of the Divinity does not do it either. There is no other way than working out one's own redemption in a downright way, by the sweat of one's brow, as Godet puts it somewhat tersely. Godet became more and more wedded to that conception.

In the same year, 1840, A. L. Bonnet, the Huguenot Minister at Frankfort, wished for his help in preparing certain commentaries to be attached to an edition of the New Testament intended for use in France. Godet resisted. "Should we not," he said, "be then thrusting the smallness of us poor little men between the Word of God and the reader? Is it not as though we would say: 'Look here, reader, my friend, you are about to read Chapter No. so and so. Well, mind you find in it this or that, nothing else, nothing more. We are there to tell you what.'"

Godet was a magnificent temporiser and it was a matter of self-respect with his soul not to usurp the prerogatives of its Master. He looked upon the Osterwald Catechism, in use at Neuchâtel, as pernicious. He could not admit that authority should pose as being infallible. When, exasperated by the slowness of his sometimes dreamy pupil, his vivacity and keen sense of duty got the better of his patience, he knew how to apologise for his own errors in judgment.

Upon the problem of the reciprocal positions of Church and State he began to form his views in 1842. Seldom was a man so well served in this respect by contemporary history in his native land.

The Church in the Principality—later the Republic—of Neuchâtel exemplified varied phases of association with the State, and also various degrees of dissociation. Godet would not hear of a *separation* of Church and State, because such a separation is inconceivable in the government of the world by God, which either is a Christian government or is no government at all. His doctrine was that the powers that be are from God and that the form of government is an immaterial aspect of principality, but principality *there must be*. The power exercising sovereignty has a right, a duty even, to exact obedience to principality. Principality being from God, no wrong that is done can be ascribed to principality, but the responsibility for the wrong must be looked for in man's general imperfection.

So our friend Godet, with his insight into the imperfection of governors, pleaded early the independence of the Church. In

his idea, the force of love, the inherent sense of union, that of the universality of Christian penetration, should, by independence, be served and set free to act without falling into political entanglements. But, with him, the independence of the Church did not mean its separation from the State. It meant the free diffusion of Christianity throughout the Body Politic without the interposition of the State.

This conception gradually proved itself to be true to the temper of the Protestants of Neuchâtel to a sufficient degree to bring about, as we shall see later, the constitution of a Free Church in the Scotch sense of the word. But we have plenty of evidence that, previous to this consummation, Godet did not go beyond the present expression, in the Church of England, of a like aspiration to spiritual independence without breaking with the establishment formula under the Royal prerogative. But we must not anticipate considerations which Godet did not really develop till after he had left the service of the Royal House of Prussia.

Of an integral or literal inspiration of Scripture, within a reasonable and prudent acceptation of those words, he was quite prepared to allow the possibility or even the intention, provided sufficient reserve were shown in ascribing purposes to the Almighty, but his reverence and good sense could not admit that the state in which the Bible documents are laid before us shows this intention to have been carried out in its entirety.

"The question of scriptural inspiration," he said, "why, this is theology, not religion. How many thousands of years have the flowers of God's making delighted man by their shapes, colours and scents, and borne good fruit unto their gardeners without taking any heed of botanists? So it is with Holy Writ. Theologians are the botanists of religion."

In a way they are such as those who would educate by means of a scientific education. "My present experiences," he wrote in 1843, "all go to impressing upon me the powerlessness of the *formal* rules of education. One *does* get educated and the external influence of educative agencies is certain. But tastes, tendencies, that which makes this or that individual out of the common clay, to that workshop, or sanctuary, we do not gain admittance."

That year was marked by the sharpening of the unpleasantness between him and General Unruh. We have seen how the parents of Godet's pupil gave their decision in favour of the civil governor, a fine example of sweet reasonableness in a family so completely addicted to military life. As those

difficulties coincided with Godet's engagement to be married to Mademoiselle Caroline Vautravers, it was easy for him to suggest that he should give up his post on that account, and his employers might have followed him upon such an opportune bypath. But they would not part with him on any other issue than his actual marriage and this was postponed for a year so as to meet the Royal pleasure.

Asked by a fellow-theologian, of the same Evangelical convictions as himself, to be unrelenting in declining joint action with Rationalistic clergymen, he wrote that, on the contrary, the more he should fight them to the quick on the point of dogma, the more also should he seize suitable opportunities in which to join with them in works of Christian charity. This would not be a surrender, but a confining of opposition to the useful point.

Godet was married on 16th October, 1844, on the estate of Madame von Scharnhorst, in whose house his bride had been a governess. He left the Royal Household with every evidence of his having been a trusted servant: a pension for life, and, for life also, the title of Royal Chaplain at Neuchâtel, with a good salary, much more than the traditions of economy prevailing in the Hohenzollern *ménage* seemed to justify. Augusta, Princess of Prussia, mother of his pupil, later first Empress of Germany in the Hohenzollern line, never forgot the obligations of heart and soul she had contracted towards the educator of her son. Godet describes her as a woman endowed with a faith that shunned words, whose religion was visible in her life, whose eloquence lay in her actions, and, for the remainder, veiled in womanly reserve.

"From the first to the last day of my sojourn with the Princes of Prussia," wrote Godet emphatically, when he felt he must leave on this point a testimony for posterity, "I experienced from them every possible mark of affection and esteem, and received from all those personages, who have so often been represented as haughty and thankless, none but proofs of natural benevolence. I was till the end an object of their most delicate attentions."

This testimony may be the more readily believed as Godet was a *strong* man and incapable of any *complaisance*.

During the period of his tutorship he naturally had but rarely occasion to write to the prince. But it was a different matter when he returned to Neuchâtel, where his life work detained him practically without intermission for 56 years (1844-1900). Letters passed then regularly and frequently

between them, and this regularity means not a little as between men who are poor letter-writers. These were extremely busy men too. The letters that have been freely circulated are obviously restricted to two points: such occasions as births, marriages, deaths, in either circle. But the private friendship which united prince and parson, enabled them to exchange thoughts outside what we may call the professional occupations and family interests of each.

Theirs is the correspondence of two gentlemen who, within the limits of what their friendship may take cognisance of, are on equal terms. Religion is not the topic of those letters, but neither is it ever absent from the minds of the writers, though in the case of Frederick, the letters came from a Royal personage actively engaged in generalship and state business, at a time when the making of history was proceeding apace. The light thrown upon the "mentality" of Frederick is such that by the time one has finished reading these letters, the reader has conceived for him a genuine love.

Since the post-Waterloo general resettling of affairs in Europe, the period from 1845 to 1857 is the only one that was attended by some serious upheavals in the internal history of Neuchâtel and Switzerland. The internal affairs of Switzerland were then marked by a violent opposition between Protestants and Catholics, culminating in Civil War in 1846, and ending in the strengthening of the Federal bond, a struggle which was closely watched by foreign powers, some of which were interested in the triumph—which did not take place—of the Catholic Party; while others, with Britain at their head, were simply interested in the strengthening of the Confederation as a whole by means of the Protestant majority—which came to be.

But the crisis bore also another aspect that entered more deeply into the sphere of what are called foreign or international politics. The wish of a large section—soon to be the majority—of the Neuchâtel people was to break off the tie with Prussia entirely, to proclaim a Republic, not after the French model of 1848, but on the Swiss pattern, and to be Swiss and only Swiss.

This scheme went through phases, but ultimately succeeded in 1857, thanks mainly to the support of Britain. France and Prussia bargained in vain with each other, till the matter got beyond the haggling stage, thanks to the unanimity of the Swiss in accepting the arbitrament of war between them and Prussia—which, however, was in the end dispensed with, when the

Hohenzollerns preferred a reasonable concession to the lust for domination in which a Bonaparte would have indulged.

In March, 1848, the Swiss Republican Party proclaimed the Republic at Neuchâtel, the Royalists offering no resistance. At Berlin, as one knows, a revolution was attempted at the same time. This failed, within limits. The account which the Prince Royal gave of it to Godet is, unfortunately, too long to reproduce here. He was then 17 years old and his narrative is quite worth reading. There is not a word in it breathing defiance of, or want of confidence in, the people. The ruling king distinguished himself by his oratorical gifts in patriarchally addressing the crowd, but the prince's father, as one knows, found it necessary to remove himself for a time, and went to London, whence he was soon recalled.

From that time, there is a political barrier between the heir-apparent and his former tutor. The latter has *de facto*, though not yet *de jure*, ceased to be a Prussian subject, but, as we hinted before, there occurred no change in the personal relations of Godet with the rulers of Prussia.

Should we say here how interested Godet was in the Confirmation of the young man? The letters exchanged show that though Godet, externally, was not connected with this chapter in the religious life of his pupil, Frederick did inwardly, and as it were in the privacy of his closet, apply to Godet for the consecration of his soul to the service of God.

The young prince clearly expected from the Almighty some perceptible reward, some spiritual acknowledgment of his dedication to the service of the Lord, but his Neuchâtel friend reminds him that by impatiently forestalling the hour of God we spoil both present and future, so that the counsel, given to us by our Divine Teacher and Friend, that we should *possess our souls in patience* is advice as kind as it is wise. "Do not filch anything away from your present and future happiness by taking it unto yourself before it is offered to you.. Endeavour rather to gain and keep possession of your soul, and do not share it with any but One."

Fifteen big pages of writing were not enough for the young prince's revealing of himself that was elicited by the above monition, and to these he added his confession of faith.

This eventful year, 1848, eventful in the spiritual life of the young prince, eventful in the history of the Prussian monarchy, eventful in the political history of Neuchâtel, was eventful also in the annals of the Church of Neuchâtel which the Republican revolution brought suddenly into a quandary not unlike that

which profoundly affected in 1846 the Church in the Canton de Vaud.

The Church of Neuchâtel, such as it issued from the Reformation, as has been pointed out above, was not an ordinary State Church. It was quite independent of the political power, and was ruled by the venerable Company, not of Apostles, but of its ministers. The Republic struck a deadly blow at that constitution, but the Company, while sacrificing its authority, insisted on not transmitting it to the State, but on vesting it in the membership of the Church.

One sees that the inner purport of this was to preserve the ancient autonomy though the Company abandoned the headship of the Church. Nobody resigned. The body of the Church was preserved whole.

The new government demanded no more than they got by the voluntary abdication which the Company of Pastors made of its episcopal powers into the hands of the Synod elected by the members of each parish, with a large representation of the laity, the direct election of parish ministers by the people, and the passing of the School of Divinity into the hands of the Synod.

Those principles were laid down by Godet and led to the adoption of the ecclesiastical law under the working of which the Church at Neuchâtel escaped disruption till 1873. All citizens accepting the forms of the Protestant Church were declared Church electors.

Thus the government of the Church did not pass into the hands of the State as in the Canton de Vaud. The need for a secession was averted. The new Church bore the stamp of self-government. This excellent result was obtained principally through the insight Godet showed in separating the essentials of Christianity from temporary and political admixtures.

It is a remarkable thing that at the moment when the House of Prussia might so easily have issued a pronouncement to its Neuchâtel subjects in a sense hostile to the new order, it refrained from any step that would have embarrassed them. It even formally empowered them to follow any course that might seem to them favourable to the happiness of their country and in accordance with the new situation.

In 1850, the Synod of the reconstituted Church appointed Godet teacher of Biblical exegesis. With this appointment began his long and arduous labours as a commentator upon Holy Writ. He became a prolific writer as well as an inspiring teacher in that domain of theology.

In 1851, after having done pastoral work in the town for six years, he was formally appointed a minister of Neuchâtel on his election by the citizens of the parish. On reporting to Berlin his acceptance of the post, not only did his devotion to his pastoral obligations meet with approval, but he was allowed to keep his title of Royal Chaplain. Godet then insisted on abandoning the remuneration attached by the Court to a title now without possible application. His request was granted, the money being transferred to a fellow-minister whom the Revolution had injured in his pecuniary interests.

It would be difficult to imagine suzerains more careful not to involve their followers in political trouble than those Prussian princes of Neuchâtel. They seemed to share Godet's doctrine that, when once an authority is set over a community, individuals owe to it the obedience to superior powers demanded of them by St. Paul. "Obey," Godet said, "though the government to which you are subjected should be the outcome of violence and sedition. Refrain from trusting your own judgment as to the legitimacy of that power."

Chronological sequence demands that we should interpose here (1856) the engagement of the Prince Royal of Prussia to the Princess Royal of England, Victoria, but only in so far as it is a topic of correspondence with Godet.

Frederick William had first met Princess Victoria in 1851 and a regular friendship had arisen between them. What a full-hearted and simple-minded love match that was, the letters make it clearer now than was ever suspected before. In fact the whole correspondence between Godet and the Prince, from 1844 to 1883, ought to be translated and published in London, in a book that would describe the tie of religious friendship that, acting upon a pre-existent affinity, bound together these two men throughout their lives.

This friendship was so close that the next and most severe commotion in Neuchâtel left it unshaken. We have said it before : this time it was the Royalists who took up arms, in September, 1856, and endeavoured to upset the Republican government which Godet and so many after him had come to serve on the principle recommended by Paul.

The insurgents did capture the seat of government, but it was too late to hope to complete such a retrograde step. Federal commissioners entered the Principality, with the Federal troops of Switzerland at their beck and call. Royalistic insurgents were captured to the number of 530. Many others fled from the country with their families ; many of those remained who

might have been harassed, being known for the trueness of their attachment to the king.

We need not dwell here upon the negotiations which ensued. Prussia very rightly intervened on behalf of those who had risked their lives on her behalf, though it was without her assent. The rebels were liberated. But Prussia's formal and final renunciation of her rights to Neuchâtel ensued as her contribution to peace. It is strange to have to note that the loss of Neuchâtel to a neutral, but military power, is the only check which Prussia experienced in a century marked by her triumphant career in every other field.

In 1857 Godet wrote to the prince, attributing this solution to a higher Power than resided either at London, Paris or Berlin, and frankly professing his henceforth undivided allegiance to Switzerland, thanks to the magnanimous generosity of the Prussian House.

Here again, Godet, though still the open and well-known friend of the House of Prussia, not only was not molested in any way by the victorious party, but was even asked to direct the solemn church service which inaugurated the new constituent parliament of the small Republic in 1858.

He preached on the spiritual sovereignty of God which subsists in the changes of temporal sovereignties, reproaching the Royalists with having wished to resume possession of the City *without* God, that is by returning to what had existed for no other reason than because it did exist. They made no earnest examination. They clung to tradition, habit, prejudice, pride, self-interest, for want of putting themselves in the place of those who urged a change.

He then turned to the Republican part of the audience and warned them that impatience was just as un-Christian as obstinacy, that a change must be a change *with* God, if it was to be an improvement, that progress in liberty spelt anarchy unless a man's conscience bound him the more closely as his exterior bonds were loosened. And he instanced Christ, the most radical of reformers, and the most scrupulous caretaker of the inheritance of Israel : the law and the prophets.

This speech shows Godet in his usual character : a vigorous optimist. It suited the mood of the people, and was printed and circulated at public expense.

We should not dwell at such length upon these local occurrences but for the strange paradox : a Chaplain of the House of Prussia acting with perfect ease and much approval as Chaplain to the Republic. It shows how much goodwill was put forth

to save the Church. The event proved that Godet was a man who could be trusted to dominate the contradictory aspects of such a situation, turning them to good purpose for the political consolidation of the community. The Republican regime, from the point of view of the safe-guarding of the Kingdom of God, seemed to afford no worse opportunity than the good old regime it displaced.

In 1860 Godet lost his wife, who had made him the father of seven children. The man who said of books : "View them as dust and let them return to dust," was now for the first time put to a serious personal trial. He would have wished to dwell upon his loss and cultivate the memory of the one who had gone. But the torrent of his occupations, lessons, letters, pastoral visits, did not allow him to linger beside that grave, where, when it closed over the body of his wife, his heart swelled with gratitude that he had been allowed to keep for fifteen years the treasure that God had given him.

In 1862 he entered upon his second union by marrying Mademoiselle Caroline Alioth, who for some time already had supervised the education of the two eldest of his daughters.

At that time Godet was far forward with his Commentary on St. John, his principal work, in which his son George was the scribe. The manuscript of this work was almost lost in a fire. Its publication began in 1863, at Paris. It should be noticed that the author of that, and of so many other excellent contributions to biblical philology, lacked the academic title of Doctor of Divinity.

In 1866, tiring of the double burden of his pastoral and professional duties, he laid down his pastoral charge. He was right in sacrificing his pulpit to his chair.

His credit as a commentator of Scripture kept increasing, and though his life became more monotonous, immersed in books, lectures and letter-writing, so that we have henceforth little to relate about his long career, his influence waxed in direct proportion to his concentration of effort upon an object suited to expand his notoriety. His authority lay in this, that he was a man of brain, flesh and temper, rather than a scholar ; a Christian rather than a divine.

The dogmatic formula of his faith sprang from the innermost sanctuary of his Christian soul ; his theology was all employed in the service of righteous living. He would accept or reject a dogma according as it brought him nearer to, or seemed to part him from, Christ. He upheld the pre-existence of Christ for no other reason than that. But he asserted also the

Saviour's actual humanity to an extent that alarmed the Trinitarians.

Meanwhile his credit, from France and Switzerland, extended to Germany and Holland. English and Swedish translations followed upon the German and Dutch. The University of Basle made him a D.D. *honoris causa*.

What was there then in Godet that made his teaching of such worth in countries teeming with most varied and able exponents of Scripture? That the Reformed churches of Romance Switzerland and France should gladly greet in him the originator of a kind of scriptural interpretation in which they were sadly deficient fifty years ago is not surprising.

Must we assume then that the same lack existed in England and Germany? That would be assuming too much. But close at hand was the fact that in Germany philological theology had undergone an enormous development, partly owing to the extreme activity engendered in every field of research by the Universities. There was therefore room for a man whose intellect would collect, and act as a strainer to, the accumulative mass of German thought and newly built-up knowledge, who would pass it, as it were, through his vigorous, independent, keen Latin mind.

Of course, we no more have in view here Baur and Strauss in German Bible criticism, than we think of Renan in French criticism. The German "constructionists" who honestly prepared scientific material as servants of Christ, are alone those whom we have to consider here.

Godet went to school with them, after having begun his studies of Scripture in an atmosphere full of the most reverent spirit. When he ceased from his German studies, it was to return within the Church, which, though Calvinistic and French, was closely allied to the centres of political and religious thought in Prussia. Godet thus became a link between the non-German and the German Protestant minds.

But he was not a subordinate instrument or what might be called a passive link. However painstaking his scholarship, however close his preparatory labours, with a magnificent Greek scholar at his elbow in the person of Professor Prince, yet his primary gifts were fire, intuition and plastic power, a rapid judgment, originality of imagination, much vivacity in expression, a perpetually strenuous and eager grasping forth for knowledge.

He was a thinker, something of a seer, much of a poet and an accurate scholar. His poetic gift was characteristically

indigenous ; it was that of a lover of nature, of an admirer of the Alps at whose feet he dwelt. He was one of those simple souls who cannot understand that, in the face of so much beauty, man should import evil and unhappiness into the world. This was to him an absurd infatuation. His grand brain failed to comprehend so much smallness of mind. He was blessed with that rare power over self, and that insight into causes and occasions of giving offence, which distinguishes the best men in every generation, whatever their creed, their country, or their calling.

The young men who passed through his hands felt that he had won over them the rights of a spiritual parent ; in the words of Calvin, that “he who administers the doctrine as the seed of eternal life, fills a father’s office and deserves the name of a father.”

It is impossible to drag into this definition of spiritual parentage the cold objectivity of the indifferent psychologist. Thus, in Godet, does one meet the warm-hearted, kindly disposition of a Bible lover.

He did not hold that science as an end terminated within itself. He conceived it in close association with all life, with his own life and the life of the Church. To his mind there was but one legitimate theology, that which, by producing an increment in Christian knowledge, brings about an increase in the Christian life of mankind.

What lends charm to his commentaries and clothes them with persuasive fervour, is, not that they are a collection of scholarly papers, but that they record the testimony borne to the Gospel by a personality imbued with the Spirit of God.

His personal teaching was so influential that when the so-called Broad Church ideas put in an appearance at Neuchâtel, in 1869, not one member of the national clergy countenanced them. The learned lectures delivered then by the objector to the Broad Church contentions were published in a volume which was translated into several languages.

However, one result of a statement made on one side and badly confuted on the other, was to show the right-minded folk in both camps that there was a flaw in the “multitudinous” conception of the National Church.

This flaw was namely that, to be “multitudinous” on terms of fairness, a National Church must cease accepting payment for its ministers out of the public rates.

To be “fair,” a Church must assume a voluntary adherence, and this assumption is ill-founded when the expenses of the

Church are met out of the State funds, which are a compulsory levy upon the civil community. The formula therefore must be: the Church open to all, but defrayed out of the pockets of the willing.

Godet was led to this conception from the time when Broad Churchmen began to complain that all the resources of the Establishment, to which *they* contributed as citizens, went to the maintenance of a clergy exclusively evangelical. This was clearly wrong in the sight of God, since a free assent could not be assumed when its "material" expression was legally enforced.

When war broke out between France and Germany in 1870—a war during which Godet naturally pleaded discreetly, but perspicuously, with the Prince Royal and Imperial, for the neutralization of Alsace-Lorraine—public attention turned away for a time from Church topics. Godet completed, meanwhile, his Commentary on St. Luke, the first edition of which went out of print in a few weeks. He went to Berlin at the end of 1871 on a visit to the Imperial Family; to Palestine and Jerusalem in 1872.

In 1873 the Liberal Party in Neuchâtel planned a modification in the ecclesiastic status of 1848, which, owing to the supremacy of an evangelical Synod over the whole Church, and over the Faculty of Divinity, stood in the way of the formation of any but evangelical ministers. Godet gave vent to his convictions as to the unfairness of the Establishment to the Church as a whole, since there were now two parties within the Church. He advocated a free secession of the evangelicals, should the political electorate ratify the proposed new ecclesiastic status which would deprive the Synod of its autonomous powers of spiritual church government. The dreaded law was actually promulgated. Then Godet actually seceded, though no conscientious holder of the principle of separation of Church and State, but anxious to make it clear that he would not be responsible before God for a Church in which the pulpits would be accessible to others than evangelical clergymen. The whole staff of the Faculty of Theology, with all the students, declared for the Free Church, naturally, headed by Godet their principal professor.

From that time Godet must be viewed as a leading member of a Free Church, though no Free Churchman, for he looked upon the relations of Church and State as purely historical or constitutional matters in which no principle was involved either way, so long as all consciences concurred in the mode

in force. We need scarcely add that Godet's objections to Broad Churchism in the government of the Church did not extend to Broad Church ministers of religion. Ministers of both churches, when once the question of Church government was constitutionally settled, accepted his leadership in works of friendly co-operation, such as furthering the observation of the Lord's Day.

In 1875 appeared the third edition of his *Etudes Biblique*s, which went through five French editions, with translations into German, English, Dutch, Spanish. This work of Godet's is the one that was most widely read by the general public. It gained access to all Protestant countries. Its chapters "On Angels" in the first volume (Old Testament), and on "The work of Jesus Christ" in the second volume (New Testament), are masterpieces.

Another work, *La Bible annotée*, caused him endless trouble. What he, with his fellow-workers, wanted to produce was a popular exegesis of Scripture for plain folk. It began to appear in 1879 in instalments and was completed in 1900, a few months before his death.

In 1877 he attended the first general Presbyterian Council in Edinburgh and spoke on the second day. Of course he was quite at home both in Scotland and in London, experiencing in himself what Continental Protestants agree in feeling of Britain, namely, that the barrier between them and the British is purely geographical, though they cannot feel in sympathy with the Romanising Englishman, who would seem, as a hybrid, to be somewhat out of place anywhere.

Godet told the Congress that the divinity of Christ, in the days when the sixteenth century confessions of faith were worded, was so obvious to the whole Christian world that it needed no peculiar emphasis in the teaching of any Church. But now it was different. While the sixteenth century believers unanimously asked of Christ, "What hast Thou done for us?" the Protestants in the nineteenth century said to Him, "We want first to know Who and What Thou art." Godet expressed his regret that the Roman Catholic Church had been allowed by the Protestants to keep a more faithful watch than the Reformed Churches over the corner-stones of the Gospel of Salvation: Incarnation and Expiation.

We have seen how Godet had a great respect for the "mystery" element in religion. He would not allow intellects to press in too closely upon the mystery of the person of Christ. He expressed clearly this point of view in a little volume

published in 1880 at Basle in a German translation, under the title, *Die göttliche Würde Christi*.

Through this translation and otherwise, he employed whatever influence he might possess over the German clergy in impressing upon them that "State money" was a poor cornerstone on which to build up a living Church, as religion could not very well thrive upon indifferent officialism. On the same subject he approached the Prince Imperial, who naturally agreed, reminding him, however, of his own doctrine: that it is useless to change institutions till the minds of men have undergone a change corresponding to the effort to be made.

Godet's admonitions to the Lutheran clergy were not quite in keeping with his usual patience. He was getting over-worked and had to refuse to prepare an Old Testament commentary demanded then for publication in Scotland. Yet his physical vigour was still such that he could ascend snowy summits in the Alps, walking sixteen hours at a stretch.

In 1884 he was made Honorary D.D. by the University of Edinburgh.

His trip to Copenhagen and Norway, in the same year, was a kind of triumphant progress. Not only was he to address the Evangelical Alliance, but Danes and Norwegians, whether clergymen or laymen, greeted in him their master and spiritual adviser wherever he travelled. His books had preceded him along those coasts as far as the North Cape.

In 1885, his Imperial friend still writes to him perfectly happy letters, speaking of his domestic life and affections, of the delight he has in his eldest son's military propensities and in the naval abilities of his son Henry. But, in 1887, a shadow begins to fall upon the exemplary home life of this family. Its head, who was to the Princess Royal the very breath of life, was becoming afflicted with the first symptoms of the dreadful throat disease which so abruptly ended his days, almost as soon as from the steps of the throne he ascended the throne itself. The sufferer wrote to the upbringer of his childhood, committing himself into the hands of God, while he should go through the severe trial of his faith.

The pastor, who had used his wife's hand in replying to this letter, being himself now shaken in health, realised he must withdraw from his responsibilities as a professor of divinity, having lost the power to discharge them satisfactorily. He thought he would henceforth devote himself to desk work alone. He did actually, six years later, publish the first volume of his Introduction to the New Testament. All he needed was rest.

Practically he had never been ill, and now that his work was cut down to the measure of his strength, a vista of many years of useful labour opened out again before him.

Not so for his Imperial disciple. In October and November, 1887, we find the prince at San Remo. Once he ends a long letter with these words: "Farewell, my dear friend, and let me assure you once more that my humility before the Lord and my submission to His will are still exactly the same as you knew them in me, when I was the child entrusted to you."

The prince, after undergoing the operation of tracheotomy, left for Berlin in March, 1888, on the death of Emperor William the First, then 91 years old.

Here is a translation of Godet's last letter to his disciple, at a time when the new Emperor had but a few weeks to live before parting with all his earthly hopes, and when he had just written to the Court Preacher: "Pray no longer for my recovery, pray for my deliverance."

" My dear Emperor—I ever have you before my eyes, and see you with all those hopes on one side with which you grew into an ever wider life, and, on another side, I behold all the sacrifices which are now so unexpectedly demanded of you: having to renounce this earthly life which we always hold so dear; having to part from all your beloved ones; having to yield that power the prospect of which you held dear for the sake of all the good you hoped to do; having to lose voice itself, the means of pouring one's heart in the heart of those who understand you.

" If only you knew how this accumulation of griefs, pouring down upon him whom I once saw in his childlike mirth and trustfulness, weighs my heart down! If only you knew how much I feel I must probe with you all this bitterness to the depths, that I may the more ardently beseech Him Who may sweeten it for you.

" In your woeful progress, you know at least that you are accompanied by universal feelings of sympathy and respectful affection. Thus was not favoured He to Whose sufferings you are now associated. He had for His share on the way to the cross mockery and every outrage, on the cross itself He felt forsaken by the One on high, and from men He got naught but . . . vinegar.

"I have lately re-read your account of your visit to the Mount of Olives. He ascended from that spot. Join Him to ascend with Him.

Your  
Godet."

We would add nothing to this letter in the way of comment. A fortnight later, the Emperor sent a telegram of thanks to Godet, with the announcement of his second son's impending marriage. On the 15th of June the news that all was over reached Neuchâtel, and on the 16th came a heartbroken message from the bereaved Empress Victoria, shortly followed by a letter from the Emperor's mother.

The bereaved ladies clung reverently to Godet for affection and comfort. When his turn came to lay himself down on his death-bed, the Empress Victoria enquired almost daily,

Nothing darkened so much the declining years of Godet as the loss of the prince whom he loved and cherished so well. He could not have loved better his own son. For our part, we know that we should in vain search the annals of history for a relation matching this for simplicity and truth between prince, set over men, and servant of God.

In 1889 we find Godet in the Waldensian valleys, celebrating there, with divines and ministers from all parts, the 200th anniversary of the return of the Waldensians to their native valleys. His age, added to his immense life-work, made him patriarch and supreme authority at any such gatherings.

The stream of so-called modern biblical criticism continued to flow past him, and he, from his solid evangelical rock, found in the new ideas brought into circulation opportunity for speaking another decisive word.

To some he said: "Why insist on separating theology from religion? What religion is free from theology? He who would repudiate the latter has in his heart given up the spirit of the former. Was there ever a faith without some kind of historic framework?"

Or else: "What hurts me is not exactly that such and such a correction should be the outcome of criticism; it is rather that they should not see how the whole drift of the Old Testament is towards holy living. There is not a man in the holy Book, be he king, prophet or priest; there are no nations or peoples that do not emerge from it confounded and convicted of sin. God alone is glorified in Scripture. That is why that Book is holy and true. No historical criticism can touch the sacred

elements of that story which aim at establishing the glory of God. Our conscience suffices to recognise the sincerity of the Bible and to vindicate its moral truthfulness. As a dogmatic speculation the unity of God and Christ has no particular virtue. Apply it to conduct it becomes an incentive, a power, a decisive element in life. There is but one word: righteousness."

In 1891, Godet spent a part of the summer at Zermatt. Known as a contributor to the *Expositor*, he was easily recognised by English visitors to Zermatt who had seen his portrait in that periodical, and were acquainted with his resemblance to Gladstone. He had, in common with the great English commoner, beauty of countenance, penetrating blue eyes, an extreme mobility of voice modulation, rapidity of physiognomic by-play, and that abounding interest in the topic of the moment, and in the act which circumstances demanded.

Godet was then more than ever bent upon producing his Introduction to the New Testament, in which so much would be finally collected that he had given before to the public in fragments, or to his students, more connectedly. The first volume appeared in 1892. The second volume began to appear in 1897, in instalments, the last of which was issued by his eldest son, in 1904, after the death of the author. One of his most original productions belongs to the same period: "The Time in the Life of Jesus that preceded His public ministry." And while we speak of originality, we should mention also: "Le Prométhée d'Eschyle," contributed in 1883 to the periodical, *Le Chrétien Evangélique*, at Lausanne.

After the model of what had taken place at Chicago, a universal Congress of Religions was to meet in 1900 at Paris, on the occasion of the International Exhibition. Such congresses Godet criticised owing to their inherent insincerity. He explained that, to his mind, religious unity should be sought in the missionary field, where it might be effected within the widest limits of Christianity, near the outer circumference, and might "regress" towards the heart of each Church at home.

Frederic Godet breathed his last peacefully in his own house in October, 1900.

\*.\* It will be noted that the above address was delivered three months before the sudden outbreak of the great European War, and that both author and audience were ignorant of the aims toward which Hohenzollern policy was then being directed.

## DISCUSSION.

Professor D. S. MARGOLIOUTH, Mr. M. L. ROUSE, Lt.-Col. MACKINLAY, and the SECRETARY expressed their indebtedness to Professor ROGET for his interesting address, and the CHAIRMAN, in closing the proceedings, said—

In this Institute we pronounce the name of F. Godet with emphatic and grateful reverence, first because of the Entente Cordiale that subsists between English and French Christians, but also because the Philosophical Society of Great Britain recognises the oecumenical bond of gratitude that binds it to a savant of European renown.

Our aim, like his, is to present the faith of Christ in a manner that can recommend it to the sincere thought of our age.

Among ourselves, scholars like Lyttelton and Westcott have recognised the merits of the great Swiss Expositor. Westcott expressed the high esteem in which he held Godet's Commentary on St. John. E. G. Selwyn, a scholar of the younger generation, told me last week that he still regarded Godet's book on the Resurrection Narratives as among the most useful and convincing on that subject.

I myself would note by a pair of illustrations the remarkable gifts which Godet possessed: the gift of speculation and the gift of scientific sympathy.

The Study on Angels in the volume of Old Testament Studies illustrates very clearly the fine quality of Godet's speculative mind. The study in the same volume on the first chapters of Genesis illustrates his vivid interest in the questions which sometimes divide, but ought really to unite, the theologian and the physical philosopher.

In this Institute, it is not our function to directly propagate religion, but to make the belief in true religion more easy and more secure. We are in this sense acting in the spirit of the old and beautiful saying that theology is the queen of the sciences, meaning that theology holds a court in which all the sciences have their welcome and an honoured place. We are inspired by that dictum of Pico della Mirandola (1463-94): "Philosophia quaerit veritatem; Theologia invenit; Religio habet."

In this task we recognise that the work of a great exegete, such as was Godet, plays no mean part. He has himself finally embodied the aim of his own labours in a memorable phrase with which I will conclude my observations :

“ Ce qui sauve c'est la foi seule ; ce qui satisfait c'est la foi arrivée à la connaissance d'elle-même.”

A hearty vote of thanks was passed to Professor Roget, and the Meeting adjourned at 6 p.m.

## 557TH ORDINARY GENERAL MEETING.

HELD (BY KIND PERMISSION) IN THE ROOMS OF THE  
ROYAL SOCIETY OF ARTS, ON MONDAY, MAY 18TH, 1914,  
AT 4.30 P.M.

MR. E. J. SEWELL TOOK THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

The SECRETARY announced that Dr. J. J. Aeworth had been elected a Member, and Mr. Archibald Greenlees an Associate of the Institute.

The CHAIRMAN then introduced the Rev. Chancellor McCormick to the Meeting, and asked him to deliver his address.

---

*THE COMPOSITE OF RACES AND RELIGIONS IN AMERICA.* By the Rev. S. B. MCCORMICK, D.D., Chancellor of Pittsburg University, Pennsylvania, U.S.A.

IN this paper the writer purposely omits any mention of the Indian, the Negro and the Oriental in the United States. They present difficulties which must be met; but intermarriage is not one of them. The Indian problem is in process of satisfactory solution. Whatever be the final issue in the case of the Negro, it will not be miscegenation. The Oriental immigration has not yet, in spite of the feeling aroused, assumed serious proportions; nor will it involve either now or later any considerable intermingling by marriage, even though it were possible that such relationship might ultimately be mutually beneficial. We therefore dismiss these, important as they are in their place, from all mention in this paper.

Since the Jew prefers to keep his stock pure and marries almost always within his own people, no special consideration is given here to the large and important Hebrew immigration into America. It is true that the Jew touches life at many points and must inevitably influence racial development. He is crowding our city colleges and universities. He is taking his place in the learned professions. He is coming to dominate in many important financial movements. He enters whole-heartedly and with genuine enthusiasm for humanity into many forms of social uplift. He is a force therefore to be reckoned with. But so far as the racial and religious composite is concerned, he affects it only from without, and therefore indirectly, and relatively ineffectively.

The process of racial and religious change now going on in America—by America in this paper we mean the United States of America—is the most remarkable known to civilization. Breeding and swarming are constantly recurring facts in higher as in lower animal life. Crowding, poverty, condition push; hope, desire, ambition draw—and again and again great hordes of people have gone out to find in other lands better opportunities and in them to establish happier and freer homes. No more cosmopolitan communities ever existed than ancient Athens, Alexandria, Rome. Each was a racial and religious composite. Even whole peoples have been so produced—the Hellenes in Greece, the Pelasgi in Asia, the Romans from Ramnes, Etruscani, Sabines. The Huns came down overwhelmingly upon Rome; later the Turks spread far out into alien territory. So into Great Britain came the Angles, Saxons, Normans. All this is history.

But in modern times, in Australia and in the Americas, migrations are taking place far surpassing anything previously known in history. The thing is gigantic, colossal. It is like earlier movements in origin and motive. It differs only in extent and in far-reaching consequences. The issues now vitally affect the whole human family. There are no more undiscovered continents; no more unoccupied lands. In the United States the original contributory nations were Great Britain, Holland, Sweden, Germany and Protestant France, forming settlements in New England, Maryland, New York, New Jersey, Pennsylvania, and the Carolinas. These people came to a land which on the one hand was practically devoid of population and on the other was practically unlimited in natural resources. For a hundred years and more the movement was continuous but relatively small. In 1790, the first year of the new nation's life, with a population of 4,000,000, not many more than 100,000 had come over in ships in the nearly two hundred years from the first settlement in Jamestown. For a century after 1650, immigration into New England was discouraged and practically ceased. It ceased everywhere about 1750, when hostilities were resumed between France and England. From 1776 until 1820—nearly one-half a century—not more than 250,000 persons were added to the population by immigration. Not yet, therefore, had this process, which is so vital a fact to-day, become a problem in America.

We speak of this in order to show that in selecting a date, even if it be done somewhat arbitrarily, when the population of the United States was a homogeneous one, we are fully justified

by the facts. Charles Benedict Davenport, in the interesting chapter of his most valuable work recently published, "Hereditiy in Relation to Eugenics," in which he deals with migrations and their eugenic significance, selects the year 1820 for this purpose. At this time the population was about 9,000,000, of which not more than 350,000 in a period of over two centuries were foreign-born. It is obvious that no people in Christendom could be more completely homogeneous than were the people of the United States at that time. If any people anywhere could be charged with the responsibility of absorbing into itself and thoroughly assimilating large numbers of immigrants, it would be America at this period.

I venture, however, for our purpose to move forward this date another sixty years to 1880, because until then immigration into America was never either large enough or alien enough to cause any apprehension or raise any serious inquiry as to the final outcome. Except for some social, political, or religious disturbance or other untoward condition in Europe the flow was steady, the quality healthy, and the effect was most beneficial. Not until 1842, did the number reach 100,000 persons in a twelve-month. Three of these *swells* of immigration deserve mention.

In 1846 the famine in Ireland sent to America over 1,000,000 within a period of five years, with the result that from that time on such emigration as went from Ireland naturally came to America.

Again, a social revolt in Germany, about 1850, sent to America some 150,000 Germans each twelve months for a period of several years.

Further, beginning in 1866, at the close of our Civil War, Scandinavian immigration began, reached its maximum in 1880 with about 100,000 persons, and finally settled down to about 50,000 annually, so continuing to this day.

Thus, not only did all immigration practically cease for the seventy years preceding 1820, but in the years following up to 1880, the United Kingdom, Germany and Scandinavia—the United Kingdom providing the greater part—sent to America only some 6,000,000 persons. When we reflect upon the fact that during this period, owing to the continued net fecundity of the native population, the total population in 1880 reached 50,000,000, it is obvious that the people at this time were scarcely less homogeneous than in 1820. We may, therefore, carry forward the date from 1820 to 1880 without seriously affecting the result.

The next important fact is that by this time the country was

well settled from ocean to ocean, and by thoroughly American people. The Irish immigrant had located almost entirely in the city; the German partly in the city and partly on the farm; and the Scandinavian altogether on the farm, chiefly in the North Middle West. But in this period New England and the Middle States had poured out their surplus populations to establish new homes from Ohio to California, forming, in nearly every case, the basic population in rural communities, towns, cities, and states. The exceptions to this were so few, such as the Swede and the Norwegian in Minnesota, as to be disregarded.

We now come to the great outstanding law universally operative,—namely, the power resident in first settlers to determine for all time the character of new communities. Only in such a country as America is it possible to observe and carefully study this law. It is a fact of almost startling significance, the most interesting and enduring phenomenon in the history of a new community. Boston is Boston and New England is New England still, and they will remain fundamentally as they are though farms be abandoned and though they be invaded by myriad races of alien origin and religion. “The men who came to New England included scholars like Pastor Robinson; like Brewster who, while self-exiled at Leyden, instructed students in the University; like John Winthrop of gentle breeding and education; like John Davenport whom the Indians named ‘So-Big-Study-Man.’ Little wonder that the germ plasm of these colonies of men of deep conviction and scholarship should show its traits in the great network of its descendants and establish New England’s reputation for conscientiousness and love of learning and culture. As it was almost the first business of the founders of the colonies of Massachusetts Bay and New Haven to found a college so their descendants—the families of Edwards, Whitney, Dwight, Eliot, Lowell, Woolsey, and the rest—have not only led in literature, philosophy, and science, but have carried the lamps of learning across the continent, lighting educational beacons from Boston to San Francisco.” (Davenport, p. 208.)

Pennsylvania was settled by the followers of George Fox under the leadership of William Penn; by colonies of Germans from certain principalities whose religious life often expressed itself in certain forms of quietism as non-combative as that of Fox; and later by the virile Ulstermen whose Presbyterianism was as rock-ribbed as were the everlasting hills of Scotland

where their faith was bred. All these were intense individualists, and Pennsylvania can continue indefinitely to receive other hundreds of thousands of immigrants from alien shores and remain as it is till the end of the chapter. My own Western Pennsylvania, with Pittsburg as its centre, with German, Italian, Austrian, Hungarian, Pole, Syrian, and what not, thrust by the hundred thousand into her industrial life—I recently attended a public school exercise in which children of thirty different nationalities participated—Western Pennsylvania is as Presbyterian as Ulster, is as homogeneous as France, and will so continue in all essential characteristics as long as time lasts. Most cosmopolitan of all the communities in America, reckoned by the number, variety, dissimilarity of its elements, it is at the same time, basically and essentially, one in its ideals of education, religion, and life.

The newer parts of the country present the same phenomenon. Iowa, for instance, is altogether rural. The farm determines all questions of education, religion, government, standards in Iowa. It is perhaps the most intelligent, moral, religious community in America. And Iowa is exactly what the first settlers made it. In the northern part is the New England, New York, Ohio stock which moved westward along a certain parallel; in the southern part is the Western Pennsylvania stock which moved westward through Ohio along another parallel—these two as easily distinguishable as two colours of the spectrum; each impressing its characteristics of essential worth enduringly upon the commonwealth, giving it permanence and character.

The State of Kansas had only a small population—about 110,000—in 1861 when the Civil War broke out, and to-day it has 1,700,000 people. But the few who settled in Kansas in antebellum days were animated by high humanitarian ideals. They hated slavery intensely, and they went to Kansas, not so much to find a home as to preserve the great Kansas prairies from the degradation of human slavery. They did not know that they were fixing for ever the ideals of a great commonwealth, and that henceforth no theory affecting social wellbeing could fly over Kansas high enough to prevent the people from catching it, experimenting with it, and seeking to make it work for the moral, social and political uplift of the people.

These illustrations sufficiently exhibit the law. It applies to townships, towns, cities, states, and whole sections, as New England. If any part of America could be unaffected by it it would be far away California and the Pacific Coast. Yet these

are the most interesting of all. The northern and southern parts of the magnificent empire of California differ most widely. The first settlers in the north were the adventurous seekers after gold, and their descendants are imbued with the same adventurous enterprise. They are cosmopolitan in taste, habit and religion. The southern part, whose first settlers were health-seekers and home-seekers, are conservative in their progress; lovers of literature as in New England, establishing many schools; orthodox in religion as in Pennsylvania; builders of cities as are the people of Chicago. Oregon and Washington further north, settled by college men, ambitious men, religious men, present the same type of enterprise and solid worth easily seen in every part of the West. The law, therefore, is universally operative—a determining factor in forming the composite which will be the America of to-morrow.

The *second* important fact regarding first settlers is their quality and their character. They are at once the most virile and the most conservative. Statistics confirm observation to the effect that it is the alert, alive, ambitious member of the family and of the community who has initiative and enterprise enough to leave one home and go into a new country to establish another. This fact applies both to the European who came to America and to the American who left the settled East and became a pioneer in the great West. It was not only true in the seventeenth and in the nineteenth century, but it is true in the twentieth century also. In 1909-10, for example, with an immigration of 1,041,000—of whom 738,000 or 71 per cent. were males—83 per cent. were between the ages of 14 and 44. However, these may differ in stock, in tradition, in aspiration, and in religion from the earlier immigrants, they were a selected group of able-bodied men of higher average than any corresponding group of the general population. They were all mentally sound—the insane and feeble of intellect could not enter. They were men of good morals—the criminals could not enter. They were economically solvent and thrifty, bringing with them an average of \$26 per person, or a total of about \$28,000,000—the pauper could not enter. They were ambitious, every man came expecting and purposing to better his condition. Such immigrants are a real and tremendous asset to any nation, not economically only, but in all the possibilities of a splendid citizenship.

With this quality of mental alertness is the fine quality of constructive conservatism. With all their enterprise they wish

to maintain a real connection with the past. This explains the Ulsterman in Ireland whose forms of religion, for instance, as nearly as possible resemble those which prevailed in Scotland at the time he left it. It explains the Boer in South Africa who made a loyal effort to establish and maintain in that country the Holland of 1700. It explains the fact that all over the western part of the United States the settlers at once established the same institutions as prevailed at home, making them better if possible, but as nearly like as they could. Their forms of religious worship and their systems of theology to-day, in their conservatism, resemble the simplicity and orthodoxy which prevailed in the East fifty years ago and have greatly changed in the old home region. The mere mention of this fact is enough. Its value and its significance in the situation in which America finds herself at this time will be altogether obvious. Fortunate, indeed, is America that her own population was fairly homogeneous; that every part of the land was settled by practically native people; that American institutions were everywhere established by those who loved them; and that the first settler has in him such marvellous power to lay hold upon and assimilate to himself all subsequent increments which may come to him.

For in spite of all well-grounded optimism, the fact must be faced that present day immigration differs vastly in character from all that has preceded and has assumed proportions relatively vast. It is substantially one million each year, of whom perhaps 800,000 remain permanently. In 1820 the increment was less than 10,000 to a population of 9,000,000; to-day it is relatively ten times greater. Moreover, then it was Saxon and Celt To-day it is Slavonian, Croatian and Dalmatian, Bohemian, Magyar, Slovak, Ruthenian, Roumanian, Italian, for the most part from South Italy and Sicily, Polish, Portuguese. Germans of course continue to come, and the Scandinavians stand at about 50,000 annually.

Will the nation which has heretofore promptly seized upon what has come, and has thrived and grown immensely richer and finer in the process of assimilating the new elements, be able to continue this process with the stranger and more difficult material which is now presenting itself? This is the question America must answer. The Irish who came in the middle of the last century chose politics as their vocation, and, especially in the cities, thrust themselves into the very heart of the nation's life, and, in spite of some exceptions, became valuable and loyal citizens. Will Slavonians, Croatians and Bohemians make

similar history? The German immigrants of sixty years ago, intelligent, disciplined, courageous, lovers of liberty, became able statesmen—witness Carl Schurz; distinguished officers in the Civil War—witness General Sigal; famous editors of influential papers—witness several such; became servants of the people in bettering social conditions—witness Oscar Straus; they became merchants and musicians and tillers of the soil. Will Magyars and Slovaks and Ruthenians emulate their example? The Scandinavian immigrants, lovers, too, of personal freedom, self-controlled and self-dependent, anxious for acres upon which to build homes for themselves and their children, went into the west and north-west and became citizens, builders of a nation. Witness Governor Lind and Governor Johnson and Governor Eberhart and a countless multitude scarcely less distinguished. Will Italians and Poles and Roumanians make such contribution to American manhood and citizenship? This question presents the problem, and upon the answer will depend the composite which is to be ultimate America. Professor Davenport says that “unless conditions change themselves or are radically changed, the populations of the United States will, on account of the great influx of blood from Southern Europe, rapidly become darker in pigmentation, smaller in stature, more mercurial, more attached to music and art, more given to certain kinds of crime and less to others than were the original English settlers.” This is doubtless true. But will they become American, and will the composite be better or worse than it is to-day? Here is to be found the destiny of America.

We do not feel constrained in this paper to discuss the future of this immigration nor the method by which it may be regulated. Experience will show the way here. The only really essential condition, perhaps, is sound physical health on the part of the immigrant. The economic part of it is self-regulative, for when conditions in America are prosperous and wages high, the flow increases, and when the reverse prevails, it diminishes. Educational and property tests are relatively unimportant, for the children of the immigrant speedily become intelligent and economically wealth-producing. Every race brings elements of genuine worth and contributes to the country of its adoption as much as it receives from it. America is “God’s great stomach,” and is, we are confident, just as fully capable now of assimilating the elements entering into it as at any previous time in the nation’s history. Such methods as are needed will be adopted to keep out the unfit. Biologists like Dr. Davenport will, from time to time, suggest precautions—

such for instance as the careful investigation into the immigrant's personal and family history, his admission depending upon a favourable report. The whole problem will be solved satisfactorily, and without question the United States will continue, not for charity's sake, but for the sake of mutual advantage, to receive the incoming immigrant and to transform him by constantly increased efficiency into the true American citizen.

What kind of composite will he be in race and religion?

The process of course is only in its beginning. The final product will not appear for a long time to come. Yet it has gone on long enough to permit of observation and rational prediction. The composite will be a genuine composite—remarkably varied in characteristics, remarkably rich and fruitful in its possibilities. This because almost every race on the globe will have contributed something in culture, disposition, interest, aptitude, blood and religion to the product. The composite will be richer and more complete than any one constituent element because the development will be under conditions most favourable for race building and perfecting. As the people of Great Britain, themselves a composite, are to-day perhaps the finest, fairest, most conscientious, altruistic, forceful and tremendously vital race in world affairs, so after a little the sceptre will pass over into America, because that people will not alone possess the idealistic, altruistic, dynamic qualities of the Anglo-Saxon, but in addition the very best of all the other peoples who are to-day contributing so vitally to the production of the new racial and religious composite in America.

### 1. *The Biological Composite.*

This is perhaps the least important aspect of the problem. We shall be brief in its discussion. The quotation given touched upon certain physical changes which are probable. In this matter the biologist must largely indulge in prophecy. He has had little opportunity for genuinely scientific study of such fusion. Perhaps he would even say that, biologically, fusion seems *contra naturam*; yet the process is assuredly going on under his eyes in America.

Only in small communities has it proceeded far enough to permit of observation. In the State of Iowa, for instance, in a Bohemian settlement another generation will witness almost complete fusion with the genuine American stock. A complete mixture, however, nowhere exists as yet. Perhaps the nearest

approach to it is the Hollander in New York. The next is doubtless in Pennsylvania in the intermingling by marriage of the German and the Scotch-Irishman, so-called. Yet whole communities of peoples in that State talk nothing but a German patois known as Pennsylvania Dutch. Physique, pigmentation, hair, colour of eyes are less important than the vitality which makes possible mental vigor. In early biologic ages the smaller, nimbler animals with more active brain survived; the slow-witted giant perished. The German army is not less efficient because it may not have a regiment like Frederick the Great's, composed of men seven feet tall. The cast of the extinct diplodocus is in the British Museum. Perhaps we may be within the limits of ascertained fact if we say that the very first result of mixture of blood strains is variation—the production of new groups of characters, the unlinking of original groups. Biologically this should result in a certain psychology—for a time at least—men of letters, inventors, moralists, social and religious leaders. Indeed, this has been measurably true already.

It must be remembered that no race in modern times is biologically homogeneous. So wide is the variation of components within each race that if we should plot graphically the variation of any trait in different nations, the curves would largely overlap. Eliminating the Oriental, the Negro, and the Indian—as we have agreed to do—and applying the fruit of recently ascertained biological study, we may look with entire complacency upon complete fusion of the several branches of the Aryan and Semitic stocks with almost certain expectancy that the final result will be a superior blend. The modern eugenic movement must issue in practical methods of reducing the production of the unfit and increasing that of the superior blood. An improved race will depend far less upon an adventitious fusion than upon intelligent choice. The responsibility for a better physical man rests upon the will of men themselves. If they want it, it can be produced. Superior mating and families of adequate size will do it. So much is true of eugenics. Studies into inherited traits are becoming more intelligent and more scientific. The results will more and more find application to actual conditions. Meanwhile, the forces going on in America must result in a more complete union of the Saxon and the Latin, the Celt and the Slav. New knowledge will develop safeguards and relieve from all apprehension. We may safely assume the substantial correctness of Burbank's prediction that the United States has "the

greatest opportunity ever presented of developing the finest race the world has ever known out of the vast mingling of races brought here by immigration," just as we may accept the opposite, namely, "the biologic law that when a race lives an isolated life without an infusion of new blood it degenerates."

## 2. *The Political Composite.*

In America this will be a somewhat complete democracy. This refers not to form of government, but to the conditions out of which government springs. It does not matter whether the government is a limited monarchy as in England, or representative as now in America, or a democracy as many in America wish it to be and are trying to make it, or something else as yet untried. The essential fact is that the people can make it what they please. They ordain constitutions, laws, courts, customs. They choose executives, judges, lawmakers. Historically the political development of the United States is most interesting. The future cannot differ greatly from the past except to evolve into completeness. The seventeen hundred men who formed the constitutions of the original thirteen states, the models of all later constitutions, were all native-born Americans except fifteen, and these fifteen were as essentially American as the others. Of the fifty-five men who formed the constitution of the Federal government in 1787, only four were foreign-born; and who can say that these four—Robert Morris from England, Alexander Hamilton from the West Indies, John Rutledge and Pierce Butler from Ireland were less American than the other fifty-one. The proportion scarcely varied in the conventions which adopted later constitutions. The Maine constitutional convention of 1820 with 293 delegates contained only two foreign-born, one from Ireland and one from Wales. The 125 delegates to the constitutional convention in New York in 1821 were all native-born; and in 1846 all but two. The seventeen states formed since 1850 adopted constitutions framed by conventions composed almost entirely of native-born citizens. Constitution-making in America has therefore been confined to the Teuton and the Celt.

The significance of this tremendous fact in a nation whose diversity of race, interests, occupations, climate, ideals, concepts of life is so great lies in this,—namely, that the America of to-day is the product of the Reformation in Europe in the sixteenth and seventeenth centuries. The moral, religious,

educational, social and political ideals—the sovereignty of God and the freedom of man underlying them all—which brought about the Reformation and were for ever confirmed by it, have been wrought into the warp and woof of American fundamental law, and could not be removed except by sweeping the nation into the sea. The infusion of the Latin will not change its essential character. At most it can only modify and make better. The infusion of the Oriental would not change it. It is, humanly speaking, impossibly to go backward. The movement must be forward, and this means simply the triumph of democracy. The sixty or more races in America have entered into the common life of the nation because there has been room for all—only in certain large cities, forced by economic pressure, have large numbers of any one nationality congregated together so as to preserve native language, customs, religion, but they would have done so in more difficult conditions because of the completeness of democratic conditions about them. In the American Universities the keenest minds are often the sons and daughters of recent comers to America, and they are most enthusiastically American. When the time comes for them to share in the administration of affairs, they will administer and support the institutions enduringly founded by the Anglo-Saxon, but so as to meet the needs of a composite race. America is not static, but tremendously dynamic, because there is no fear of the outcome. It is ever changing, but always advancing toward a higher ideal. Whatever mistakes may be made in the retranslation of politics are soon corrected and progress is ever toward the goal of a people intelligent enough, patriotic enough, self-controlled enough, to bring into being a democracy from which all elements of peril are eliminated. That political problems of grave character are before the nation—the initiative, referendum and recall; direct nomination of the presidential candidate; the popular election of senators; and many others not less vital and fundamental—is a fact whose only significance is that the people are asserting the right of a more direct and more positive political control. They may or they may not insist upon these specific things, but they do insist upon the right to determine every political question for themselves, from the form of government to the erection of a public school building. The final outcome worked out by an intelligent, patriotic, and self-restrained people will be the triumph of popular rights, the vindication of the liberty of a great people, the demonstration of a victorious and enduring democracy.

*3. The Social Composite.*

It was my thought, in forming the outline of this paper, to discuss the psychologic composite in America. But apart from the extremely difficult nature of this task and my own inability to accomplish it, is the fact that it is inextricably entangled in the social and religious composite which I desire to present as fully as possible. Psychology touches both of these at every turn, and can scarcely be considered apart from them.

The American people in origin, in history, and by the very necessity of their living conditions, have been characteristically individualists. If there is in them one dominant and universal trait, this is it. The unlimited resources and wide-stretching free lands have spelled opportunity, have required industrial initiative, have demanded and developed hardihood and courage, and have produced a type of manhood which thinks, chooses, determines, acts for itself in every emergency and upon every question. Not only have conditions fostered individualism, but the immigrants brought it with them. It was another of the causes and the fruits of the Reformation. Pennsylvania with its Quaker, German, and Ulsterman, all intense individualists, has already been referred to.

This quality will not disappear, but it will manifest itself in new ways. Already the change is rapidly coming about. At this time about one-half of America's population is urban. In the industrial north-eastern part three-fourths of it is so. Here dwells 85 per cent. of the immigrant people. Social maladjustment has been inevitable. The congestion of foreign peoples in sections of large cities has accentuated the situation. Health and housing problems must be solved. Slavic people, for instance, living for centuries in the open country, do not know how to adapt themselves to the city environment. To create an agency wise enough, discreet and skilful enough, to direct the arriving immigrant to the section of country and form of employment best suited to his past tastes and training is most difficult. It is obvious that untoward social conditions have been unavoidable, and equally obvious that a remedy cannot at once be applied. Out of this situation, the social reformer, the wise one and the foolish one, has arisen. Peril is not absent. Multitudes feel that wrong and injustice lurk in conditions, but they do not know how to find or remove them. The good man and the bad man are equally at a loss. All unite in this, however, that organized society must somehow discover the evil and provide the remedy.

This very situation is developing in America a new set of emotions, convictions, responsibilities, and obligations. Out of this, a new and better social order is in process. The frank, naked individualism of the past is feeling the impact of the social idea. The tremendous struggle in which the men of America were compelled to engage in order to overcome nature, to carve farm lands out of the limitless prairies, to open and operate mines, to build cities, to construct railways and telegraph and telephone, to create wealth and surplus capital, to lay strong and deep the foundations of political, social, educational and religious institutions, has been responsible for the fact that one overmastering idea is that of production. This problem *had* to be solved. Mills *had* to be built. Labour *had* to be secured. Capital *had* to be created. It is not strange, therefore, from the standpoint of psychology as from the standpoint of compulsion, that little attention relatively was given to the equally important matter of distribution. This situation is now undergoing rapid change. Men are coming to see that the mere production of wealth, vital as it is to public well-being, is not enough; that its just distribution among those who contributed to its creation is also a sacred obligation which must neither be evaded nor deferred.

The development of the social consciousness of a great nation of individualists is a radical and marvellous process. But it is a process which is going on in America. The final result is not in doubt. Men of wealth all over our land are recognizing the obligation and responsibilities possessions lay upon them. They are giving thought to the best methods of placing accumulated wealth to the public service. Not Mr. Rockefeller and Mr. Carnegie only, but most men are working out the problem as conscientiously as they know how. A short while ago New York city gave four million dollars to the work of the Christian Associations. My own city of Pittsburgh, in a public movement among the citizens, gave the University of Pittsburgh two million dollars. In every way this new social idea is clothing itself in some concrete form of service. City planning; better housing; education more perfectly adapted to the practical needs of the people; legislation on behalf of children and wage-earning women; bureaux to aid the newly-arriving immigrant that he may go where he ought, engage in the work he can do best, be protected from those who would prey upon his ignorance of the customs of the strange land; the Christian Associations doing a work of marvellous importance in surrounding young men and women

with moral and religious safeguards and in providing educational advantages for those who had no opportunities early in life, or who may be compelled to toil during the day; the use of public schools as social and neighbourhood centres out of hours; the establishment of playgrounds and other places of physical enjoyment and recreation; and a multitude of other agencies, all looking to the betterment of social conditions and the perfecting of the social order.

I instance these efforts to lessen, and so far as possible eliminate, social inequalities, injustices, miseries and defects, not for the purpose of calling attention to the efforts themselves, but for the much more important purpose of illustrating the social evolution of a great people. My desire is not to call attention to what is being done to mitigate social inequalities and injustice, but what the doing of these things is accomplishing for society itself. The very fact that millions of people have come to us who need what we can do for them creates an obligation, furnishes an inspiration, and points out the method whereby the people may add to their virtue of individualism the greater virtue of social responsibility, losing not one jot of personal initiative but gaining immensely in sympathy and the consciousness of universal brotherhood.

Such a consummation in some land is the great desire of nations. For it the peoples of the earth are anxiously waiting. The social consciousness in its evolution extends out to include society in its broadest conception and becomes ultimately the fully developed international mind and the international heart. One man thinks in terms of self; another in terms of his own family; another in terms of his city or state or nation. No man has come into his own until he learns to think in terms of nations. Race antipathy is universal. The millennium cannot come till this utterly ceases to exist. The people of one nation belittle the people of another, simply because they are different, not because they are inferior. If this feeling should be non-existent anywhere it should be in America; and if any nation should gather all peoples of all climes within the circle of its sympathy and regard, it should be this same America.

Dr. Edward Alfred Steiner recently wrote: "Can we learn to think and feel in terms of all the races, or must there always be antipathy which grows into prejudice, and prejudice which ripens into hate? Must we be doomed to live looking at one another as problems, meeting one another with fear, and irritating one another with war?

"Was he a false prophet who cried out in some such perplexity of spirit :

"Thou lookest down from heaven ; thou beholdest the children of men ; thou fashionest their hearts alike ?"

"Was he a false Messiah who sent apostles to the other sheep and who will never regard His work as finished until all the sheep are in the fold ? He taught His disciples to pray in terms of the common human needs and common human relationship—'Our Father.' He lifted Himself from the narrowest social race views and, with a sublime gesture, pointing to the crowd, spoke majestically :

"For whosoever shall do the will of My Father Who is in Heaven he is My brother and My sister and My mother."

Professor Steiner is right. Some nation must arise which will for ever put away race feeling and substitute for it the perfect social consciousness, warmed and directed by the spirit of Him Who made all nations one, and all men brothers. What nation so likely as America, to whose sheltering arms all the peoples have come, there to abide until the great inter-racial composite shall be complete ? No matter how far removed we are as yet from this conception the process of assimilation will be finished only when the social composite is made perfect. When that day has come—and God grant that England and Germany and all the others may have reached it also—then war cannot be ; for war springs out of prejudice, and ignorance, and selfishness, and lust of power, and pride of life ; not out of sympathy and friendship, and brotherhood and love ; and *these* are the elements of the Social Composite which some time America will become. Who shall then say that it is far removed from what the Scriptures call "The Kingdom of God" ?

#### 4. *The Religious Composite.*

Sociology has no meaning apart from religion. The social composite and the religious composite are, if not identical, at least intermingled one with the other, as psychology is mingled with both. Strictly, a social composite is impossible save as religion makes it possible.

It is said that the skull of the man who embraced the Reformed Faith in Switzerland, Germany and Holland, has certain readily distinguishable measurements and shapes. Presumably this is fiction ; but if it were fact it would be an interesting inquiry as to whether the head produced the theology

or the theology produced the head. I have no intention of discussing the problem of the origin and development of religion, nor what psychology and environment have to do with it. It is enough in this place to note the fact that the human race, always dynamic, has during all the centuries instinctively, or under the inspiration of a more or less intelligent faith, moved forward toward a higher intelligence and a purer religion ; that it has ever sought in the future something better than it had known before, because always it has been endowed with curiosity, energy, endurance, vision and courage. Satisfaction follows achievement. When one task is completed there is readiness for one more difficult still—and power also. Whether the final goal is Heaven or the superman, the fact stands. What effect upon the forms of religion, differences in government, industry, education, language, customs, dress, social conditions and physical environment may have is an interesting inquiry. We do not stop to discuss it here.

The important and basic fact for our purpose is that the American people are profoundly religious. This means substantially the same thing as if we should say, as we well may, that the English people are profoundly religious. Yet it is not exactly the same. If they are equal to the same thing they are not equal to each other. Whatever it be that makes the difference, it still exists.

The faith of the vast majority of American people is Christian ; and of the largest part of these, evangelical. Northwestern Europe and Canada have furnished the greater part of the foreign-born and with them their religious faith ; and this has also been the religious faith of most of the native-born citizens. This fact has the same significance in the religious development of the nation as the similar fact has in the racial development. The more recent immigration from South-eastern Europe with a variant religious faith must obviously least affect the religious life of the nation. The strong and ever-operating tendency is that the faith of the native people will profoundly affect and modify the faith of these who come —according to a law which cannot be set aside. Roman and Greek Catholicism cannot, for instance, be in America what they are in Spain and in Russia.

The American nation is unique in that it achieved political solidarity without a corresponding solidarity of religious interests. This was inevitable for several reasons. Most of the colonies brought with them from Europe traditions of religious freedom, purchased at the price of bloodshed and persecution,

and hence as dear to them as life itself. Furthermore the movement towards political unity among the colonies was by no means strong enough at first to insist upon religious uniformity had the political leaders felt so inclined. And finally, these religious differences were supported to some extent by the slight differences of racial stock, although all belonged to the same ethnic group. The Presbyterians were mainly Scotch-Irish ; the Lutheran and Reformed sects were of Dutch and German extraction ; the Congregationalists drew from the Puritan English middle class ; and Catholicism from the Irish. Religious solidarity seemed to presuppose to some extent ethnic solidarity.

The ethnic homogeneity which our political institutions presuppose and encourage has, as already shown, increased steadily in spite of the stream of immigrants that come to us yearly from Europe. With increasing ethnic homogeneity has come the triumph of democracy and a decreasing emphasis of sectarian differences. The theological tenets once sharply emphasized by the various Protestant sects have now dropped entirely into the background. Apart from differences of worship and ritual—which, since they are matters of individual taste and preference, in all probability will persist—the content of the religious message as delivered from our leading pulpits to-day is practically the same. It would hardly be possible for the stranger listening to the Presbyterian, Methodist, Baptist, or Episcopalian preacher of to-day to tell from his discourse what his theological affiliations are. Even the great Roman Catholic Church, which through its system of education has carefully safeguarded its sectarianism against the levelling influences of nationalism, is not likely to hold its own in the struggle. In spite of its rock-ribbed institutionalism and its magnificent traditions it must in time bow before the insistent demand of democracy that human life is one and that we cannot separate the citizen from the saint. Theological orthodoxy and unquestioning obedience to authority are not more important than social service and civic righteousness. In fact, authority, whether of theology or ecclesiasticism, is giving way to the insistent and authoritative power of truth in whatever form it may come.

The spirit of democracy, therefore, together with scientific method, are the two forces which are destined to give to the religion of the future in this country its final form. The spirit of democracy will insist upon a modification of institutional forms in religion with reference to modern needs, and an application of the spiritual dynamic, that religion alone can give in the struggle

against social ills. Science will gradually effect, and that in spite of the strenuous resistance of religion itself, a simplification and a purification of our religious faith, without which such a faith cannot hope to gain and hold the loyalty of an intelligent people.

The democratization of religion is even now progressing at a rate undreamed of by the average layman. The test of social efficiency which is being applied with such thoroughness to education, politics and the administration of justice is being extended to religion. Indeed, a conventionalized and institutionalized religion must undergo reconstruction to meet the needs of the changing social order, or it must perish. The perfecting of the means of intercourse has brought with it a widening of our sympathies and quickened sense of social solidarity. This is thoroughly antagonistic to the old selfishly individualistic faith of other days. Increasing industrial development has deepened the feeling of human brotherhood. The pooling of interests and the extensive mutualization of society have forced men in thought and in action to ignore the accidental and the non-essential and to seize upon the things that are of universal and permanent worth. Religious values, since they are the most comprehensive, must be restated so as to fit the new social conditions. This re-evaluation must be from the standpoint of democracy.

The chosen instrument for this rehabilitation of our faith in terms of modern life is science. For science is no longer the goddess worshipped by the esoteric few: she is fast becoming the servant of all, the high priestess of social efficiency. The representatives of religion have too often seen in science religion's bitterest foe. Certainly no two attitudes are apparently more opposed than that of the passionate, heaven-storming religious reformer and the patient, critical, emotionless, scientific investigator. But there is little doubt that the religion of the future will owe its greatest debt to science. In the face of vigorous protests science is applying the methods of modern psychology to religious experience, with the result that the theologies of yesterday must be re-written. Scientific criticism is humanizing and vitalizing the Old Testament, providing us with the true historical perspective and giving us a new Book. Above all, science is teaching the religion of the future to be open-minded and loyal to the truth. The religion of the future is thus returning to the ideal of its Founder, "Ye shall know the truth and the truth shall make you free."

What, then, is to be the Religious Composite in America? It will be that which results from the purifying and the

socializing of the faith of to-day. So far as content is concerned it will include the loftiest, the most permanent and the most comprehensive human values. It will provide ultimate sanctions for business integrity, personal purity, patriotism and social righteousness in general. It will not degenerate into the religion of humanity, and it will be more than a religion the content of which is identical with democracy. We have reason to believe that it will still retain for the most part its denominational and institutional forms as the necessary setting for the spiritual ideal. Creeds will exist, but their content will be limited to those ideas which have been found of proven worth as a result of experience and the test of social efficiency. Rituals also will survive. They will not be subordinated, however, to dogmatic prejudices. Through them will be provided a beautiful and effective setting for religious truth.

Central in the religion of the future will be the idea of God. The God as men will come to know Him will not be identical with the external deistic conceptions of the past, nor with the tri-theistic monotheism of the present. The Deity of the democracy of the future will embody the highest spiritual aspirations and provide the ultimate religious and moral sanctions for a progressive and intelligent community. The life of that democracy will be His life. He will share in its triumphs and defeats, in its suffering and sinning. "Society as a federal union, in which each individual and every form of human association shall find free and full scope for a more abundant life, will be the large figure from which is projected the conception of the God in Whom we live and move and have our being."

Finally, the religious faith of America, each race contributing something to it, will be the enthronement of the Gospel of Scripture as the supreme law of life. Religion will more and more become the life of men, not something outside of them. It will be as Micah expresses it, "To do justly and to love mercy and to walk humbly with thy God." It will be as James expresses it, "To visit the fatherless and widows in their affliction and to keep oneself unspotted from the world." It will more and more tend to put emphasis upon what is vital and essential; less and less upon what is formal and ceremonial. The wonderful words of Jesus, setting forth fundamental and universal truth, will become the very heart of the religious faith of the people. Their application to the need of universal mankind will receive more general recognition, and conduct and

character will be influenced and perfected thereby in a measure never before attained.

In this attempt to forecast the future religious faith of America and the religious composite which will some time come into being, one is necessarily handicapped by the fact that so little progress has been made toward the realization of any considerable part of it. Nevertheless it is easy to perceive the growing impatience of the people with theological polemic, with unmeaning ceremonial, with ecclesiastical and dogmatic authority, and with any doctrine or teaching which lightly or ineffectually touches their real life. They are demanding that religion, like everything else, shall submit itself to the test of effectiveness. People are hungry for the truth which touches the heart of their life and are satisfied only when they get it. The Church will more and more heed this cry, becoming as it is increasingly insistent, and will come more perfectly to apprehend and to fulfil its divine mission of mediating between God and man so that the people will come into a larger knowledge of their Sovereign Lord and into fuller participation in the riches of His Grace.

#### DISCUSSION.

The CHAIRMAN said : I have no hesitation in saying on your behalf as well as on my own that Chancellor McCormick has given us the opportunity of listening to a very interesting and suggestive paper on the subject which he has chosen.

The problems of the future in the United States are not different to those which we have to face here in Great Britain, and it is with very great interest that we listen to an authoritative voice explaining to us how they are likely to be dealt with by the Great Republic across the Atlantic.

I think we must all recognize the glorious spirit of optimism and confidence in the future which runs through the paper. Immigrants from some of the most backward races of Europe are pouring in by the hundreds of thousands, but the author feels confident that it is only their best and most valuable qualities which will enter into the composition of the future nation. So confident is the author on this point that he seems rather to take the fact for granted than very definitely to assign reasons for the conclusion.

The most definite reason assigned is the very interesting law which he formulates as the power resident in first settlers to determine for all time the character of new communities.

Now I think the greatest compliment that one can pay such a paper as we have listened to is to give it careful consideration and well-weighed criticism. I will not therefore further apologise for asking for some fuller justification of the existence of a "law" of this kind than the statement that it exists. The author tells us that it is only in such a country as the United States of America that it is possible to observe and carefully study this law. Further, since his historical summary shows us that until 1880 the nation was fairly homogeneous, it is only during the last thirty-four years, and chiefly during the latter part of that period, that any circumstances can have arisen that could test the enduring validity of the law laid down. Stated in this way the "law" described looks rather dangerously like a wide generalisation from a single instance. No doubt the Chancellor will be able to show that this is not really the case.

The author speaks of the conflict between the intense and dominant individualism of the past in the United States and the impact of the social idea of nationality. We, too, are in the midst of that struggle, and it is encouraging to learn that the final result is not in doubt and to gather that that final result will be the cessation of all class and racial hatred and the final extinction of war. It is not wonderful that the author should identify the nation in which all this has taken place with—The Kingdom of God. It is a magnificent and alluring ideal. Let us hope with the author that it is certain to be realised.

I have spoken of the wide sweep of the paper and the multitude of questions discussed in it. Not the least interesting is the author's description and forecast of the future of religious thought in the United States, in which the spirit of democracy together with scientific method is to result in the purifying and socialising of the faith of to-day. However tempting this theme may be I must not occupy more of the time left for discussion. Doubtless other speakers will take this point into consideration.

Lieut.-Col. ALVES noted that the lecturer had omitted to consider the effect of the Indian, Negro and Oriental elements on the population of the United States. In England this was an easy-chair problem; in the States it was serious and very actual. He thought that the lecturer's first law held good, as the original settlers were of the Anglo-Saxon race, which alone showed real genius for self-

government. Racial qualities might be classed as follows :—Saxon, masculine ;—Celtic, feminine ;—Negro, the servant. Under no circumstances should the inferior race govern the superior ; nor should the Negro intermarry with either of the two white races. He could not quite accept the lecturer's final remarks as to the connection between democracy and authority in religion.

Mr. MARTIN L. ROUSE said that such a lecture, as they had listened to that afternoon, warmed their blood and tended to strengthen still further the bonds that united Englishmen and the descendants of England's first colonists in America. The misguided policy of the British Government a hundred and forty years ago had driven those colonies out of political union with ourselves ; but they still inherited the same common language and traditions, and the kinship of the two countries was more treasured than ever. He had observed with delight the children of many different nationalities in a State school in Buffalo, learning to read the Word of God in common ; and he felt that such schools were a great force for welding all the citizens of the country into one compact body imbued with the fear of God. But he was sorry that, through the traditions which had come down from the old slave-holding days, the feelings of brotherhood in Americans seemed blunted when dealing with one large section of their community—the Negroes.

Mr. E. WALTER MAUNDER had been much struck with the masterly way in which the lecturer had arranged his paper and ordered his argument. The problem before the United States was a very difficult one, because both the proportion and the character of the immigration had undergone so great a change in the last generation, and it was natural to suppose that, under such changed conditions, the experience of the past was no sufficient guide as to the future. To meet this objection, the lecturer had formulated two laws, which he had defended with great force. With regard to the first law, many illustrations might be brought from history to support the lecturer's contention. Thus, there had been a long succession of waves of population flowing over Greece, so that some of our best ethnologists claimed that the present Greeks had practically no racial connection with ancient Greece. Yet the Greek peasantry of the present day were very little changed in their characteristics from what the inhabitants of the same regions were three thousand years ago. Similarly the Ulstermen of to-day, in many points resembled

the population of the same province, as described to us by tradition, long before Strongbow landed in Ireland. As to the second law, he doubted whether the present immigrants were all of the same high type as the earliest. Most of those who went to America in the last half century or so went in search of material advantages, because they hoped to make a living there more easily than they could at home. There was no such thought before the Pilgrim Fathers: they gave up all their material advantages for their religious principles. The fundamental question for any nation was not its physical or mental abilities, but its spiritual character: its attitude towards God. For this reason he had not felt quite satisfied with the lecturer's closing words; it did not lie within the province of man to alter religion to suit his convenience: a man-made religion was worthless. If they read the prophets of old, they would see that they always spoke as being directly commissioned from God; it was always "Thus saith the Lord."

The LECTURER in replying, thanked the meeting for the very kind reception they had given to him. He was not hurt by any criticism that had been passed on his paper; he had expected it, and indeed much more. Talking to a theological professor of Harvard College before he left home, he had told him of this paper, and the professor had differed from him entirely. Nevertheless there need be no fear of the future. He fully agreed with the closing words of the Secretary, Mr. Mauder. But the fact remained that, though the bulk of the immigrants at the present time might be of an inferior stock, their children were educated and became filled at once with the genuine American spirit. The whole of the country had been settled by genuine Americans, of the Anglo-Saxon stock, and he believed they would assimilate all the new material, though the Anglo-Saxon was apt not to be too considerate of those whom he considered his inferiors. He, the Lecturer, still maintained both his propositions; he believed in God's over-ruling providence, and that He was not conducting any failure either in England or America. Even in the questions of Mexico and Ulster he remained an optimist.

The Meeting adjourned at 6.5 p.m.

558TH ORDINARY GENERAL MEETING,  
HELD (BY KIND PERMISSION) IN THE ROOMS OF THE  
ROYAL SOCIETY OF ARTS, ON MONDAY,  
JUNE 8TH, 1914, AT 4.30 P.M.

THE REV. PREBENDARY H. E. FOX TOOK THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

The SECRETARY announced the election of the Rev. Albert J. Nast (Editor, *Der Christliche Apologete*), and the Rev. Arthur Louis Breslich, B.A., B.D., President of the Baldwin-Wallace College, Berea, Ohio, as Associates of the Institute.

---

The CHAIRMAN, in introducing the Right Rev. Dr. J. E. C. Welldon, Dean of Manchester, to the Meeting, said that he felt great pleasure in presiding on this occasion, the more so that he was himself an old Harrow boy, and, as all there knew, Bishop Welldon had been Headmaster of Harrow. The Bishop had asked him to apologize to the meeting on his behalf, since he would have to leave early in order to catch the express train to Manchester, where on the morrow he would be taking part in the memorial service for those who had lost their lives in the terrible disaster to the "Empress of Ireland." He would, therefore, not take up any more time of the meeting, but would at once invite Dr. Welldon to give them his address.

*THE SUPREMACY OF CHRISTIANITY.* By THE RIGHT  
REV. J. E. C. WELLDON, D.D., Dean of Manchester.

SUMMARY.

CHRISTIANITY claims to be the one ultimate universal religion among mankind. But the spirit of Christian missionaries towards other religions than their own should, as far as possible, be one of sympathy. Such was St. Paul's spirit when at Athens he took the inscription 'Αγνώστῳ θεῷ on an altar in the city as the basis of his appeal for faith in Jesus Christ and His Resurrection. I have often regretted that there is no epistle to the Athenians among St. Paul's extant writings.

The universality of the religious instinct is recognized by anthropologists of the highest distinction, such as Tiele and

Tylor, and, I may add, by Frazer in his book, "The Belief in Immortality." It is not difficult to trace the evolution of religious belief from Animism to Polytheism, then, with some diversion in favour of a dualistic system, such as Manichaeism to Monotheism, and, ultimately, to that finer Christian Monotheism in which God is held to be not only one God, but to be the Father of all His children upon the earth.

In the comparison of religious systems it is possible to put aside, as not aspiring to universal supremacy, all purely local, tribal, racial, or national religions. Among these religions the most remarkable is, of course, Judaism, as the Hebrew genius for religion was unrivalled, and the Hebrew religious literature has been far more influential than any similar literature upon the moral and spiritual fortunes of humanity. Not less is it possible, I think, to put aside such religions as not only were originally, but have remained, in their essential features, Oriental. To this class of religions belong Hinduism, Parseeism, Shintoism, and, I think it is not unfair to add, Buddhism. All these religions have found, and still find, their natural homes in the East. There was a time when the religion of Islam threatened to inundate Europe; but the overflowing tide was driven back by Charles Martel and John Sobieski, and in spite of Gibbon's ironically regretful words about the lost teaching of the Koran in the University of Oxford, it has never seemed probable that Islam would become acclimatised in Europe, or that Mohammed would be treated as a rival of Jesus Christ.

Two great religions there are which by a singular fortune have flourished, not in the countries where they were born, but in the countries to which they were transplanted, viz., Buddhism and Christianity. But Buddhism, if it migrated from India to Ceylon, Burma, China and Siam, never lost its Oriental character. Christianity is the sole example of an Oriental religion achieving ascendancy over the minds and hearts of nations in the West.

I put, then, first as a proof of the supremacy which Christianity claims among the religions of the world, that it alone has shown its capacity of fusing in spiritual sympathy the East and the West. Jesus Christ, it is clear, contemplated the universality of His religion; for He bade His disciples to make converts of all nations. His Church, after evangelising the Western World, has within the last two or more centuries reacted upon the East, in India, in China, and in Japan. Nor is it too much to say that in all these countries, as also in Africa, the Church has proved its capacity for evoking, at least among certain select representatives of the native population, the

distinctive virtues and graces of the Christian life. It is not necessary to accept all the glowing tribute of a religious reformer like Keshub Chunder Sen to the ascendancy of Jesus Christ in India ; but the fact remains, I believe, that even to-day the East and the West are never so nearly harmonized as when in Southern India, for example, native converts, both men and women, are seen kneeling side by side with European missionaries at the Holy Communion of Christ's Body and Blood. For myself, I cherish the hope that, if India embraces Christianity, its intellectual and spiritual effect upon the Church of Christ will be surpassed only by the effect of Greece in the second, third and fourth centuries of the Christian era.

Another point of Christian supremacy I hold to be the Bible. To me the sacred literatures of the world are, upon the whole, disappointing. No one of them is comparable with the Old or, *a fortiori*, with the New Testament. The noble series of the Religious Books of the East, published under the auspices of the late Professor Max Müller, has for the first time afforded the Western World an opportunity of acquainting itself with the literary expression of Oriental creeds. I can only say that those books are in my judgment not only inferior to the Bible, but that the later parts of them are generally inferior to the earlier ; whereas the Bible exhibits a continuous moral and spiritual advance from *Genesis* to *Revelation*. At any rate, there can be no higher authority upon Oriental literature than that illustrious scholar, Sir William Jones, and he wrote in his Bible, "I have carefully and regularly perused the Holy Scriptures, and am of opinion that the volume, independently of its divine origin, contains more sublimity, purer morality, more important history, and finer strains of eloquence than can be collected from all other books, in whatever language they may have been written."

Yet another point of supremacy in the Creed of Christendom is its moral elevation. It will not, I think, be denied that Mohammedanism, by its toleration of slavery and polygamy, or Hinduism, by such practices as sati and such ceremonies as the holi festival, to say nothing about the worship of cows, stand upon a lower moral platform than Christianity. The Brahmo Somaj is, in fact, on its moral side a protest against the degradation of Hinduism. Contrast with Mohammedanism or Hinduism the morality of the Sermon on the Mount, of which a critic so dispassionate as Goethe could say that it represented the unsurpassable ideal of human conduct, and the gulf between Christianity and the other religions of the world at their best is

self-evident. If I were to choose an instance as showing how far Jesus Christ has lifted the moral standard of humanity above His predecessors, I would put His treatment of the woman taken in adultery beside the conversation between Socrates and the courtezan as related by Xenophon. The Christian Saint, whether man or woman, is, in fact, the realisation of a type which the pre-Christian or the non-Christian world can scarcely imagine.

Let me add the fidelity of the Christian revelation to human nature. Christianity is based upon the facts of man's inherent sinfulness, yet his natural affinity to God, and his conscious need of redemption or atonement. By the doctrine of the Incarnation it satisfies the human desire of contact with the Deity; in the fact of the Crucifixion it exemplifies by a unique example the principle of self-sacrifice. It sets its seal upon the truth enunciated by the prophet Micah, that not in ritual or oblation, but in obedience to the Divine Law lies the true performance of religious duty. It were strange indeed that the Bible, if it were a purely human book, should always take God's side as against man's; but if holy men of old spake in the Bible as they were moved by the Divine Spirit, then it is natural that the Bible should "justify the ways of God to man." Such a religion as Confucianism or Buddhism seems to stifle the human instinct of prayer and devotion. Other religions admit it, but fail to satisfy it. In Christianity alone is the spiritual side of human nature completely satisfied.

Again, the progressiveness of the Christian revelation distinguishes it from religions which are hidebound by some rigid institution, as Hinduism is by caste, or incapable, as Mohammedanism is, of rising above a certain level. Hinduism and Buddhism are stationary religions. Mohammedanism, as being historically later than Christianity, may be said to be a religion comparatively retrograde. It is a religion of conquest; and if it lifts a pagan society with singular rapidity to a certain height, beyond that height it is apparently impotent to ascend. It is morally and spiritually weakened by its inadequate conception of the Godhead; for the Mohammedan God is a God of Power; the Christian God is a God of Love.

I come then, lastly, to the person of Jesus Christ; for it is His personality which gives His religion its most distinctive superiority to all other religions of the world. It may be not unfairly said that Mohammed, by the defects of his personal life, fails to answer the highest instincts of humanity. Buddha, if he was the Light of Asia, is not, and cannot be, the Light of

the World. There is something morally defective in the very renunciation which his followers treat as the birth and touch-stone of his religion. The sinlessness of Jesus Christ, His self-sacrifice, His infallible authority, His unity with God, separate Him from all other founders and teachers of religion. It is true of His Crucifixion as it is true of no other event in any other life, "I, if I be lifted up from the earth, will draw all men unto Me." He is the Sovereign Head of humanity. If it is asked who is the archetypal man, the man who seems to sum up in himself all that humanity may be and ought to be and longs to be, there can be no other answer than that it is He. So, too, His divine eternal life, transcending death, enables Him, as in the Holy Communion, to impart Himself in mysterious intimacy to His disciples. They live a life not their own, a life which He originates, preserves and sanctifies ; they are one with Him, and He with them.

As I look forward and try to estimate what the future may portend, as I see democracy advancing to its full prerogative of power, as I see the nations of the Far East awakening to new life, I feel more and more that the supreme need of the world is to permeate all nations and all classes of men in the nations with the spirit of Jesus Christ. The religious instinct in man is not dead ; but it demands a faith which shall satisfy both intellect and conscience. Christianity alone still holds the key of life's abiding mysteries. In the simplification of the Christian Creed, or its accommodation to the variety of national characters and dispositions, in the approximation of the Christian Churches each to the others ; above all, in the personal devotion which Jesus Christ evokes from devout hearts and minds all the world over, lies the hope that, as humanity develops, it will bow its head in humble, reverent adoration before the Incarnate and Crucified Son of God.

#### DISCUSSION.

The CHAIRMAN asked for an immediate and hearty vote of thanks to the Lecturer, since Bishop Welldon was obliged to leave at once. They had all listened with profit to his clear and impressive address.

It was their duty to consider the religion of other races without prejudice, and to extend to them, as the Lecturer had done, every

fairness and sympathy. But they should agree with the Lecturer in his conclusion, not from the influence of their own personal predilections, but in accordance with the evidence of fact. He would draw attention to one fact in particular, namely, that there was a marked absence from sacred books, other than the Bible, of any answer to three most vital questions—questions that Christianity answered fully.

Man yearns after a Supreme Being, someone outside and above himself to control his life. Other religions give no such conception as that of the Fatherhood of God, declared by Christianity.

Next came the question of access to God by sinful man ; how can God and man meet ? The only answer possible is through Jesus Christ.

And the third question is as to where man can find the power to live a holy life. These three questions were answered in that noble formula with which they were all so familiar : The grace of Our Lord, Jesus Christ, the love of God, and the fellowship of the Holy Ghost." These were only learned in Christianity ; no other religion could produce such a benediction.

And no other religion had the same unifying influence. He had witnessed some two or three hundred native converts kneeling with Englishmen in a wattle hut on the banks of the Godaveri to receive the Holy Communion, and, as he had watched the scene, he thought that nothing could illustrate more forcibly the "Communion of Saints," nothing else than Christianity could have brought together in such communion those of such different races and character.

Lt.-Col. MACKINLAY desired to join heartily with the Chairman in thanking the Bishop for his paper. He rejoiced in the statement that Christianity stood alone ; that the religion of the Lord Jesus Christ was the only one ; that it was true and all others false.

The superiority of Christianity to all other religions as to its world-wide character was well brought out by comparing it with Judaism, itself of Divine origin. The Jew was forbidden to mix with other races for fear of corruption to himself ; he did not seek to make converts, and he was ordered to destroy the wickedness in the land of Canaan by slaying the wicked inhabitants. The followers of the Lord Jesus Christ, on the other hand, were ordered to go and preach the Gospel to every creature, and his disciples early obeyed this injunction, and now Christians are to be found

the wide world over. Heathens are not now to be destroyed, but the Gospel of God's love was taken to them.

Mr. MAUNDER felt that the subject did not lend itself for discussion; they had come to be instructed and edified by the Bishop, not to criticize him. He had been especially glad that the Bishop had pointed out so clearly that he was not taking up the subject of "comparative religions," to use a current phrase, but was claiming that Christianity was supreme, not as the first among equals, but as being unique. For himself, he much disliked the expression "comparative religions." St. Augustine had said that "God was One," not in contrast to many gods, but because He "escaped numeration." Religion meant the binding of men to God. So it was only where One God, the Creator of heaven and earth, was recognized and adored that we could properly apply the term "religion" at all. And there were three faiths that answered to that definition, and these corresponded to the three stages in God's revelation of Himself. Mohammedanism was a far-off and corrupt echo of the patriarchal religion; then came Judaism; and lastly, in Christianity, God revealed Himself in His Son.

Mr. E. J. SEWELL wished to comment upon a single point. To deal with a subject like that of the present lecture, we ought to endeavour to put ourselves in the position of men who had been brought up in other religions, and had met Christianity for the first time. But since we ourselves had been brought up in Christianity, it was impossible for us to take this standpoint. But at the great missionary conference, held in Edinburgh in 1910, there were not only gathered together men who had studied other religions deeply and without prejudice, but they had the testimony of men who had been born and brought up in other religions, and who had been converted to Christianity. Other religions could, and did, point out the difference between the characteristics of spiritual health and disease in men, but it was Christianity alone that supplied the effective power by which the diseased could be restored to health. No other religion opens to man a road by which he can pass from a state of sin to that of holiness.

The Meeting adjourned at 5.45.

## 559TH ORDINARY GENERAL MEETING.

HELD (BY KIND PERMISSION) IN THE ROOMS OF THE  
ROYAL SOCIETY OF ARTS, ON MONDAY,  
JUNE 22ND, 1914, AT 4.30 P.M.

THE RIGHT HON. THE EARL OF HALSBURY, F.R.S., PRESIDENT  
OF THE INSTITUTE, OCCUPIED THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed and the SECRETARY announced the election of Mr. Arthur Spencer Chamberlain as Member of the Institute, and of Mr. Smetham Lee as Associate.

The PRESIDENT then called upon Col. Sir Charles M. Watson, K.C.M.G., C.B., M.A., to deliver the Annual Address.

---

### ANNUAL ADDRESS.

#### *JERUSALEM, PAST AND PRESENT.*

(With about 50 Lantern Illustrations.)

By COL. SIR CHARLES M. WATSON, K.C.M.G., C.B., M.A., Chairman  
of the Executive Committee of the Palestine Exploration Fund.

#### SUMMARY.

BEGINNING with the reproduction of a raised map of Palestine, the original of which is to be seen at the offices of the Palestine Exploration Fund, the Lecturer briefly sketched the physical features of Palestine. He traced the lines of its distant railways. In particular, he devoted attention to the line which ran—if a railway could be said to run, when it went at not much more than a walking pace—from the seaport of Jaffa, on the site of the Joppa of the Acts of the Apostles, up to Jerusalem.

Jerusalem is one of the most interesting cities in the world, a city that has a history of more than four thousand years and that holds the position of a sacred city for three of the most important religions of the world—the Jewish, the Christian, and the Mahomedan. It has been destroyed over and over again, but has always risen from the ruins, and now in the twentieth century, more than three thousand years since it was

adopted by King David as the capital of the Jewish monarchy, it is still great and thriving; a growing city for, outside the walls, what was called "the new Jerusalem" was steadily rising up.

There are many routes to Jerusalem, but perhaps for the modern traveller the most usual way is to land at Jaffa, and to

proceed thence by road or railway. Jaffa has a bad harbour, and landing there is frequently both difficult and disagreeable on account of the dangerous nature of the reefs. Of the old town there is very little left, and the place has completely changed, even since the times of the Crusaders, when King Richard I. fought with Saladin under its walls.

From Jaffa, it is best for the traveller to go on by train, as the railway runs over an interesting district, and as the train goes

very slowly, while climbing the ascent of 2,500 feet, Railway to it is easy to get a good idea of the features of the Jerusalem. The railway goes first through the low country formerly occupied by the Philistines, and then turns east into the mountains of Judaea by the Wady es-Surar, known in the Bible as the Valley of Sorek, the site of many battles between the Israelites and the Philistines. Then,

Jerusalem passing through a narrow gorge, the railway mounts Station higher and higher, until it reaches the station at Jerusalem, 2,500 feet above sea level. The railway station is outside the walls to the south-west, and a cab-ride of about three quarters of a mile—fancy a cab-rank in the city of the Prophets—takes the traveller up to the Jaffa Gate, a busy place, the centre of the life of modern Jerusalem; close to this gate is Al Kal'a, the citadel of Jerusalem, founded upon the site of the palace of Herod the Great.

The prevalent notion that Jerusalem is an exceedingly hot city is wrongly based, for although fairly hot in summer, it is very cold in winter, and the Lecturer once saw six inches of snow there at the beginning of March. Tourists going to Jerusalem certainly ought not to date their visit before the beginning of April at the earliest.

To one who arrives at Jerusalem for the first time it is Plan of impossible to realise what the ancient city was like, Jerusalem, as the form of the ground has entirely altered, The Hills and Valleys. and what now appears to be a comparatively level surface, covered with houses, was formerly intersected

with several deep valleys which have been filled up with the ruins of the past, and have almost entirely disappeared. In some places this accumulation of débris is as much as 100 feet in depth, and it is only by exploration, very difficult to carry out on account of the streets and houses, that one can get some idea of the ancient cities, now buried underground.

The Lecturer then showed maps and plans of Jerusalem, locating its special features and reconstituting its appearance in former times. There are certain places, respecting Outline Plan of Jerusalem. which there can be no doubt, such as the site of the great Temple of the Jews, first built by Solomon, restored by Zerubbabel and again by Herod, and finally and completely destroyed by the Emperor Titus, more than 1,000 years after its original foundation. Of the ancient walls of the city there are but few traces left, and the very lines they followed are subject for discussion, while the existing walls are modern as Jerusalem history went, having been built about 400 years ago when the Turks took possession. The old wall built by David has entirely disappeared underground, and can only be reached by sinking deep shafts and galleries. Tourists sometimes go to Jerusalem expecting to find the old city, and they are necessarily disappointed, because the old city is many feet underground. Such an expectation is as reasonable as that of a visitor to London who should come believing that he would find the old Roman city still visible. And the ancient Jerusalem is much further underground than Roman London.

The Jaffa Gate is a good place from which to start on an examination of the city. On the right is the old building called the Tower of David, the foundations of which may possibly be those of one of the towers of the palace The Pool of Hezekiah. erected by Herod the Great. On the left is a reservoir called the Pool of Hezekiah, which is probably part of the ditch of the second wall, and is referred to by Josephus as the place where the 10th Legion, during the siege by Titus, set up their machines to batter the wall.

Steps to Holy Sepulchre. A little further to the north-east is the Church of the Holy Sepulchre, the centre of Christian pilgrimage for more than sixteen centuries. The most interesting feature here is perhaps the view of the court outside, crowded with beggars, many of them the most picturesque characters imaginable. These, together with the endless succession of pilgrims of all nationalities, make up

a human panorama of continual and sometimes pathetic interest, and bring to the photographer better opportunities for figure study than any other place in the world. The only time when this part of Jerusalem is fairly free from beggars is immediately after Easter, when, the devout pilgrims having gone on to Nazareth and other places, the beggars follow them almost in a body.

The question as to whether the so-called tomb was really the scene of the Resurrection of the Lord is one that has given rise to much controversy, but all that can be said with certainty is that it is the place which was selected by Bishop Macarius in the fourth century, when he was ordered by the Emperor Constantine to find it.

**Portrait of a Beggar.** Plan of Holy Sepulchre. The South Front. The Greek Church. The North Transept. The Holy Sepulchre. Chapel of St. Helena. The Greek Patriarch. The Armenian Patriarch. Russian Pilgrims.

Of the buildings erected by Constantine there is practically nothing left, and his great basilica, the Church of the Martyrium, has disappeared with the exception of the crypt, having been destroyed by the Persians when they captured Jerusalem in the seventh century. The present choir and transepts are comparatively recent, having been built by the Crusaders during the Christian occupation in the twelfth century.

The Church of the Holy Sepulchre and its chapels are now allotted among the various denominations of Christians who are very careful to maintain their special privileges, while the Mahomedan guardians see that order is preserved, and that there is no fighting within the sacred precincts.

The oldest part of the Church is the Chapel of St. Helena, probably the crypt of the basilica of Constantine. It is cut in the rock, and at its eastern end a flight of steps leads down to the cave, in which were found, it is said, the three crosses upon which Jesus Christ and the two thieves were crucified. The actual holy tomb beneath the dome is underneath a canopy of quite modern construction and rather out of taste. Portraits of the Greek and Armenian patriarchs were shown, and a remarkable picture of a group of Russian pilgrims on their way to worship at the Holy Sepulchre.

There are no people who take so much trouble or come so far, or hold the pilgrimage in such regard as the outstanding event of their lives, and the sight in its way is extremely touching.

To the south of the Church of the Holy Sepulchre are the remains of the Hospital of the Knights of St. John of Jerusalem, which was established for the assistance of sick and poor pilgrims. The ruins of these buildings have been almost completely obliterated within the last few years by the erection of a new Greek bazaar, while the old Church of St. Mary has been entirely rebuilt by the Germans. It is satisfactory that the British branch of the Order of St. John still carry on the good work of their predecessors, as they maintain an excellent hospital for the treatment and cure of ophthalmia, that terrible scourge of the East.

**The Ecce Homo Arch.** The streets of Jerusalem are very narrow and many of them are very steep. They are therefore unsuited for wheel traffic and even for beasts of burden are not always convenient. In some cases the houses are built over the streets, an arrangement due to the fact that space is limited. One of the relics of antiquity which is visited by every tourist is the Arch, where, according to tradition, Pontius Pilate presented Jesus Christ to the people. But it could not have been built at the time of the Crucifixion, and probably dates from the time when the Emperor Hadrian rebuilt the city—A.D. 132—and called it *Ælia Capitolina*.

**The Damascus Gate.** Going towards the north the Damascus Gate is reached, the principal entrance to the city on this side. The present gate only dates from the sixteenth century, but it probably stands on the site of a much older gate in the wall built by King Agrippa in A.D. 41, some remains of which are still visible.

**The Damascus Gate without.** Proceeding through the Damascus Gate on the north, the Lecturer traced the wall on its northern and eastern sides, showing the spot where the crusader, Godfrey of Bouillon, effected an entrance into the city in 1099, subsequently becoming King of Jerusalem in fact, though not in name, for he said that where his Master had worn a crown of thorns he would not wear a crown of gold.

**The North Wall.** From the Damascus Gate the wall of the city runs east and west, and nearly opposite is a hill in which is a curiously shaped cavern known as Jeremiah's grotto. Not far from this is an old rock-cut tomb, which has of late years been assumed by some people to have been the real scene of the Resurrection, but there

are no good grounds for the idea, and it is doubtful whether the tomb could have been in existence at the time of the Crucifixion.

Proceeding along the north wall one soon comes to the Valley of the Kedron, with the Garden of Gethsemane, and the Mount of Olives, with the Church of the Ascension on the top. None of the sacred trees, of course, remain; for when the Romans besieged Jerusalem they cut down every tree. The Turks, by their method of taxation, discourage the growth of the olive. Near the latter there have recently been found the foundations of the Church of the Eleona, built by the Empress Helena in the fourth century. The Church was destroyed in very early times, and its site was unknown until the foundations were recently found by accident in the vicinity of the modern Church of the Paternoster.

It is interesting to compare the map of modern Jerusalem with the oldest plan of the city that exists. This forms part of a mosaic map of Palestine which was found a few years ago in the ruins of an ancient church at Medeba, east of Jordan. It probably dates from the end of the sixth century. The mosaic has been much injured, but the part containing the plan of Jerusalem has been fairly well preserved and gives a good idea of the city and the churches, as they then existed, so that it is very helpful in a study of the history of Jerusalem.

A notable feature in the east wall of the city is the Golden Gate with its two portals, which formerly led into the Valley of the Kedron from the Haram area. The date of its erection is uncertain but it may possibly have been originally built in the fourth century. It was closed when the walls of Jerusalem were restored by the Turks in the sixteenth century.

The Haram area, in the south-east portion of Jerusalem, corresponds more or less to the enclosure constructed by Herod for his great Temple. Following the east wall of the city southwards we reach the south-eastern corner of the Haram enclosure, a point where Captain Warren made some remarkable explorations, and proved that the wall at this place is covered with 80 feet of rubbish, and that at that depth the original foundations are as perfect as when they were laid, possibly in the time of King

Remains of  
the Eleona.

Apse of  
the Eleona.

The Medeba  
Mosaic.

Plan of  
Jerusalem.

The Golden  
Gate.

The South-  
East Angle.

The  
South-East  
Angle  
under-  
ground.

**The Foundation Stones.** Solomon. The careful placing of the huge blocks of stones, both those above ground level and those hidden from sight down to the solid rock below was a great achievement.

On the slope of the hill to the south stood the royal city of King David which has entirely disappeared. At the foot of the hill is the Pool of Siloam, near to which some interesting discoveries were made for the Palestine Exploration Fund by Dr. Bliss, who found an

**The Church at Siloam.** ancient church twenty feet underground, which was probably built by the Empress Eudocia in the fifth and destroyed in the seventh century. Under the church the well-known tunnel brings the water

**The Siloam Tunnel.** from the Virgin's Fountain to the Pool, and in this was found the famous inscription which is generally believed to have been cut in the time of King Hezekiah.

Returning to the Haram area, there is to be seen near the south-west corner the remains of an ancient arch, which Captain Warren found to be the commencement of a grand approach to the Royal Cloister of the Jewish Temple. The springing of the arch is now close to the surface, but the valley at this point was originally 80 feet deeper, so great has been the accumulation of débris in the course of centuries.

A little to the north of the arch the Jews, who, by the way, now number 50,000 in Jerusalem and are more numerous than

**Robinson's Arch.** the Christians or the Mahomedans, have their Wailing Place whither they resort on Fridays to lament the loss of Jerusalem and to pray for its restoration.

Near the south wall of the Haram is the Mosque of Aksa, originally built by the Khalif Abd-el-Melek in A.D. 691, but since destroyed and rebuilt several times. It was the head-quarters of the Knights' Templars during the Christian occupation of Jerusalem in the twelfth century. North of the

**The Haram Area.** Mosque of Aksa stretches the Haram enclosure upon which formerly stood the great Temple of the Jews. That Temple has now entirely disappeared ; so completely has the prophecy been fulfilled that not one stone was to be left on another. But an

**Plan of the Temple.** interesting relic was found by Monsieur C. Ganneau in the form of one of the Greek inscriptions which, as we are told by the historian Josephus, were

**Temple Inscription.**

placed on the barrier beyond which Gentiles were not allowed to pass.

The site of the Temple is now occupied by the beautiful Mahomedan building in the centre of the Haram enclosure, and wrongly called the Mosque of Omar. It is not a mosque and was built, not by Omar, but by the Khalif Abd-el-Melek in the seventh century over the Sakhrah or Holy Rock. Its proper name was the Dome of the Rock, and the Lecturer showed a remarkable view of its interior, with the bare rock in the place of a pavement—the rock, once the refuse heap of Jerusalem, but long since cleaned and sweetened, and made holy, and with traditions clustering around it, the like of which appertained to no other rock in the world. Its traditions relate to Abraham, Jacob, and David, and it formed the base of the Holy of Holies in the Temple of King Solomon.

The PRESIDENT, at the close of the lecture, proposed a hearty vote of thanks to the LECTURER, which was seconded by Lt.-Gen. Sir HENRY GEARY, K.C.B., Vice-President, and supported by the Treasurer, Mr. A. W. SUTTON, by Professor EDWARD HULL, and the Ven. Archdeacon POTTER. The LECTURER briefly replied, and on the motion of the Very Rev. the DEAN OF CANTERBURY the thanks of the Meeting were passed to the PRESIDENT for taking the Chair, and the proceedings terminated at 6 p.m.

---

\*<sup>\*</sup> The titles given in the insets are those of the chief illustrations shown.





LIST OF THE  
MEMBERS, ASSOCIATES,  
&c.

# COUNCIL AND OFFICERS.

---

## President.

THE RIGHT HONOURABLE THE EARL OF HALSBURY,  
D.C.L., F.R.S.

## Vice-Presidents.

SIR T. FOWELL BUXTON, BART., K.C.M.G.  
DAVID HOWARD, ESQ., D.L., F.C.S., F.I.C. (*Trustee*).  
LIEUT.-GEN. SIR H. L. GEARY, R.A., K.C.B.  
PROFESSOR EDWARD HULL, M.A., LL.D., F.R.S., F.G.S.  
REV. CANON R. B. GIRDLESTONE, M.A.  
GENERAL J. G. HALLIDAY.  
VERY REV. H. WACE, D.D., *Dean of Canterbury* (*Trustee*).

## Honorary Auditors.

E. J. SEWELL, ESQ. | H. LANCE GRAY, ESQ.

## Honorary Treasurer.

ARTHUR W. SUTTON, ESQ., J.P., F.L.S.

## Secretary and Editor of the Journal.

E. WALTER MAUNDER, ESQ., F.R.A.S.

## Assistant Secretary.

MR. ALBERT E. MONTAGUE.

## Council.

(*In Original Order of Election.*)

REV. CHANCELLOR J. J. LIAS, M.A.  
THEO. G. PINCHES, ESQ., LL.D., M.R.A.S.  
VEN. ARCHDEACON W. M. SINCLAIR, M.A., D.D.  
REV. JOHN TUCKWELL, M.R.A.S.  
LIEUT.-COLONEL GEORGE MACKINLAY (*Chairman*).  
ARTHUR W. SUTTON, ESQ., J.P., F.L.S.  
REV. PREBENDARY H. E. FOX, M.A.  
PROFESSOR H. LANGHORNE ORCHARD, M.A., B.Sc.  
RT. REV. BISHOP J. E. C. WELLDON, D.D.  
SYDNEY T. KLEIN, ESQ., F.L.S., F.R.A.S., M.R.I.  
WILLIAM J. HORNER, ESQ.  
ALFRED T. SCHOFIELD, ESQ., M.D.  
HEYWOOD SMITH, ESQ., M.A., M.D.  
REV. H. J. R. MARSTON, M.A.  
VEN. ARCHDEACON BERESFORD POTTER, M.A.  
J. W. THIRLTE, ESQ., LL.D., M.R.A.S.  
E. J. SEWELL, ESQ.  
ALFRED W. OKE, ESQ., B.A., LL.M.  
LT. COLONEL M. A. ALVES.  
REV. PROFESSOR D. S. MARGOLIOUTH, D.LITT.  
R. W. DIBBIN, ESQ., F.R.G.S.  
JOSEPH GRAHAM, ESQ.

\* *Members of Council.*

† *Life Members or Life Associates.*

¶ *Distinguishes those who have contributed Papers to the Institute.*

£ *Foundation Members or Associates (elected before Dec. 31, 1866).*

## M E M B E R S .

### A.

- 1914 Acworth, J. J. Esq. Ph.D. F.I.C. F.C.S.  
 1876 Aitken, Rev. Canon W. Hay M. H. M.A. Oxon.  
 1895 \*Alves, Lt.-Colonel M. A. R.E.  
 1896 Anderson, Sir Robert, K.C.B. LL.D.

### B.

- 1882 †Baring, Rev. F. H. M.A. Camb. F.R.G.S.  
 1869 †Barker, John L. Esq.  
 1912 Baron, Rev. David.  
 1914 Baxter, William Henry, Esq. J.P.  
 1901 †Bell, Colonel Alexander W. C. (late Indian Army).  
 1873 Bevan, Francis A. Esq. D.L. J.P.  
 1910 Bishop, T. B. Esq.  
 1908 Bowles, Edward Augustus, Esq. M.A. Cantab. F.L.S.  
     F.E.S.  
 1907 Braun, Mrs. D. von.  
 1912 Brocklebank, Mrs. Richard M.  
 1884 Brown, Rev. Claud, M.A. Oxon.  
 1907 Bruce, Rev. John Collingwood Gainsford, M.A.  
 1913 Burton, John T. Esq.  
 1896 Buxton, Sir T. Fowell, Bart. K.C.M.G. F.R.G.S.  
     (VICE-PRESIDENT.)

### C.

- 1912 Campbell, Charles Stewart, Esq. B.A. Camb. I.C.S.  
 1891 Carr, Rev. Arthur, M.A. late Fell. Oriel, Hon. Sec.  
     Cent. Soc. Higher Relig. Educ.  
 1914 Chamberlain, Arthur Spencer, Esq. B.Sc.  
 1894 Chapman, Geo. John, Esq. M.A. S.C.L. F.Z.S.  
 1904 Clough, G. Benson, Esq.

- 1911 ¶Coles, Rev. J. J. B. M.A.  
 1906 Collett, Sidney, Esq.  
 1890 Collins, Brenton H. Esq. J.P.  
 1871 †Coote, Sir A. C. P. Bart. M.A. Camb. F.R.G.S.  
 1905 Corrie, Josiah Owen, Esq. B.A. F.R.A.S. (Barr).  
 1913 Cruddas, Miss Florence.  
 1897 Cunningham, Francis A. Esq. M.A. B.Sc. (Attorney-at-Law).

## D.

- 1871 †Day, William, Esq.  
 1903 Deacon, J. F. W. Esq. M.A. J.P. D.L.  
 1889 †Dodge, Rev. D. Stuart, M.A.  
 1899 Drummond, Mrs. J. M. A.  
 1903 Ducie, Right Hon. The Earl of, F.R.S. F.G.S.

## E.

- 1882 †Ellis, Alston, Esq. A.M. Ph.D. LL.D.

## F.

- 1878 Fairfax, Sir James R.  
 1875 ¶\*Fox, Rev. Prebendary H. E. M.A. Camb.  
 1876 Freeman, Miss F. H.  
 1892 Fremlin, R. H. Esq.

## G.

- 1892 Geary, Lieut.-General Sir H. L. K.C.B. R.A.  
     (VICE-PRESIDENT.)  
 1877 ¶Girdlestone, Rev. Canon R. B. M.A. (VICE-PRESIDENT.)  
 1896 †Gregg, Rev. David, D.D. LL.D.

## H.

- 1899 Halliday, General J. G. (VICE-PRESIDENT.)  
 1888 ¶HALSBURY, The Right Hon. Hardinge Stanley Giffard,  
     Earl of, K.G. P.C. F.R.S. (PRESIDENT.)  
 1901 Harrison, Edgar Erat, Esq.  
 1882 Head, J. Merrick, Esq. F.R.G.S.  
 1893 Heath, Captain G. P. R.N.

- 1890 Hellier, Rev. Prebendary Henry Griffin, Balliol Coll.  
Oxon.
- 1879 †Hingston, C. A. Esq. M.D. B.Sc. Lond.
- 1914 Hogan, H. C. Esq.
- 1895 Hooper, George Norgate, Esq. F.R.G.S. F.S.S.
- 1912 Hopkins, Rev. Evan H.
- 1906 \*Horner, William J. Esq.
- 1873 ¶Howard, David, Esq. D.L. J.P. F.C.S. F.I.C. (VICE-PRESIDENT.)
- 1873 Howard, R. Luke, Esq. F.R.M.S.
- 1888†Hull, Professor E. M.A. LL.D. F.R.S. F.G.S.; late  
Director of the Geological Survey of Ireland,  
Acad. Sci. Philad. Corresp. Soc. Geol. de Belg.  
(VICE-PRESIDENT.)

## J.

- 1891 †Jex-Blake, The Very Rev. T. W. D.D.

## K.

- 1882 †Kent, Mrs. E. Isis, F.R.Inst.Soc.
- 1911 King, George A. Esq. M.A. Master of the Supreme Court.
- 1893 †Kinnaird, The Honourable Louisa E.
- 1900\*¶Klein, Sydney T. Esq. F.L.S. F.R.A.S. F.R.M.S.  
F.E.S. M.R.I.

## L.

- 1913 Lamplough, Williamson, Esq.
- 1891¶†Lansdell, Rev. Henry, D.D. Memb. Rl. Asiatic Soc.  
F.R.G.S.
- 1898 Laurence, Miss M. A.
- 1911 ¶Lewis, Mrs. Agnes Smith, LL.D.
- 1875¶\*Lias, Rev. Chancellor J. J. M.A. Hulsean Lecturer  
1884.
- 1908 Longdon, Miss.
- 1911 Llandaff, The Right Rev. Joshua P. Hughes, D.D.  
Bishop of.

## M.

- 1897¶\*Mackinlay, Lieut.-Colonel George, late R.A. (CHAIRMAN OF COUNCIL.)
- 1912 Maconachie, Robert, Esq. B.A.
- 1885 †Marshall, Rev. C. J.
- 1907 Martin, George H. Esq. M.D.

- 1908 ¶†Maunder, E. Walter, Esq. F.R.A.S. (SECRETARY.)  
 1909 McLarty, Pharmacist Colin, U.S.N.  
 1898 Molony, Edmund Alexander, Esq. (Indian Civil Service.)  
 1913 Monro, Rev. Charles G. M.A. M.B.  
 1905 †Mortimer, Rev. Alfred G. D.D. Philadelphia.  
 1881 †Mullens, Josiah, Esq. F.R.G.S.  
 1911 ¶Munro, Rev. J. Iverach, M.A. Edin.

## N.

- 1881 Newton, Rev. Canon Horace, M.A. Camb. of York.  
 1911 Niblock, Rev. Alex Moncur.

## O.

- 1908 \*†Oke, Alfred William, Esq. B.A. LL.M.  
 1891 \*†¶Orchard, H. Langhorne, Esq. Prof. of Logic, M.A.  
     B.Sc. (Gunning Prizeman, 1909.)

## P.

- 1881 †Patton, Rev. F. L. D.D. LL.D. Prof. Relations of  
     Philosophy and Science to the Christian Religion,  
     Principal, Princeton Theo. Seminary.  
 1896 †Petter, Rev. W. D. H. M.A. Camb.  
 1911 Phillips, Charles, Esq. F.R.G.S.  
 1898 ¶\*Potter, Ven. Archdeacon Beresford, M.A. T.C.D.

## R.

- 1911 Richardson, Robert D. Esq.  
 1880 Rivington, Rev. Cecil S. M.A. Hon. Canon of Bombay.  
 1899 ¶Rouse, Martin Luther, Esq. B.A. B.L.

## S.

- 1903 Schuster, Rev. W. P. M.A.  
 1882 †Scott-Blacklaw, Alex. Esq.  
 1904 ¶\*Sewell, Ebenezer J. Esq. (HON. AUDITOR.)  
 1889 †Simpson, Prof. Sir Alexander R. M.D. D.Sc. LL.D.  
 1873 Smith, Chancellor Philip Vernon, M.A. LL.D.  
 1892 †Stilwell, John Pakenham, Esq. J.P.

- 1903 ¶\*Sutton, Arthur W. Esq. J.P. F.L.S. (HON.  
TREASURER.)  
1906 Sutton, Leonard, Esq. F.L.S.

## T.

- 1908 \*Thirtle, James W. Esq. LL.D. M.R.A.S.  
1906 Townley, Rev. Charles F. M.A.  
1899 Tremlett, James Dyer, Esq. (Barr.-at-Law) M.A.  
Camb.  
1889 Tritton, Joseph H. Esq. F.R.G.S. F.S.S.  
1894 ¶\*Tuckwell, Rev. John, M.R.A.S.  
1883 Turton, Lt.-Col. W. H. D.S.O. R.E. F.R.G.S.

## U.

- 1889 ¶Urquhart, Rev. John. (Gunning Prizeman, 1905.)  
1880 Usherwood, The Ven. Archdeacon T. E. M.A.

## W.

- 1876 ¶\*Wace, Very Rev. H. D.D. Dean of Canterbury; Hon  
Chap. to the Queen; late Principal of King's  
College, Lond. (TRUSTEE.) (VICE-PRESIDENT.)  
1873 Walters, William Melmoth, Esq.  
1878 †Watson, Rev. A. Duff, M.A. B.D.  
1914 Wetherfield, David A. F. Esq.  
1903 †Whidborne, Miss Alice M.  
1910 Whidborne, Mrs. G. F.  
1899 Wigram, Rev. E. F. E. M.A.  
1910 Wilkinson, Rev. Samuel Hinds, F.R.G.S.  
1894 Williams, Colonel Robert, M.P.  
1879 Willis, Right Rev. Alfred, D.D.

## Y.

- 1876 Young, C. E. Baring, Esq. M.A. F.R.G.S.

## ASSOCIATES.

- 1878 Adams, Rev. Canon James.  
 1888 †ANDREWS, Rt. Rev. Walter, M.A. Bishop of Hokkaido,  
     Japan.  
 1905 Arnström, Rev. D. A.  
 1887 Arrowsmith, E. M. Esq.  
 1914 Ash, William Henry, Esq. J.P.  
 1887 Ashby, Robert, Esq.  
 1909 Ashwin, Rev. Edward Godfrey, M.A. Camb.  
 1909 Ashwin, Rev. Hamilton, LL.D. T.C.D.  
 1891 †Atkinson, Rev. Edward, D.D. Master Clare Coll.  
     Cambridge.  
 1914 Avenell, George, Esq.  
 1906 Baker, Lt.-Colonel W. W. R.E.  
 1912 Balfour, Frederick R. S. Esq. M.A. Oxon.  
 1918 Balfour of Burleigh, The Right Hon. Lord.  
 1911 Banham, Rev. William, B.A.  
 1912 Barbour, Mrs. G.  
 1912 Bardsley, Rev. Joseph Udell Norman, M.A.  
 1912 Barker, Miss Marian.  
 1893 Barlow, Rev. C. H. M.A. Oxon. Chap. Bengal.  
 1902 Barton, Rev. Professor G. A. Ph.D.  
 1911 Baumer, Miss E. M.  
 1909 Beachcroft, Miss Mary.  
 1913 Benjamin, Edgar A. Esq.  
 1906 Bent, Mrs. Theodore.  
 1887 Berry, Rev. Canon D. M. M.A. Oxon. Demy of Magd.  
     Ellerton Prizeman.  
 1894 Bevan, Ven. Archdeacon H. E. J. M.A. Camb.  
     Gresham Prof. of Divinity.  
 1890 †Bigelow, Professor Melville M. Ph.D.  
 1888 Bird, Arthur, Esq. F.R.G.S.  
 1904 †Birkett, Rev. Arthur Ismay, M.A.  
 1911 Bishop, Herbert M. Esq. M.D. Yale.  
 1910 Bishop, Miss Lisa.  
 1910 Bishop, Miss Penelope M.  
 1879 Bishop, Mrs. Amy.  
 1911 Blackburn, Rev. Eastwood, M.A. L.Th.  
 1905 Blandy, Miss Grace.  
 1900 Bolton, Miss Elsie H.  
 1890 Bomford, Rev. L. G. M.A.

- 1902 Boord, Miss Eva J.  
 1911 Braddon, John B. Esq.  
 1912 Bramwell, Miss Cecilia.  
 1914 Bramley-Moore Swinfen, Esq.  
 1895 Breed, Rev. Professor David R. D.D.  
 1895 Breed, Rev. F. W. B.A. Durham.  
 1914 Breslich, Rev. President Arthur Louis B.A. B.D  
     Baldwin-Wallace College, Ohio, U.S.A.  
 1887 Bridgeman, Col. the Hon. Francis C.  
 1882 Broadbent, Colonel J. E. C.B. R.E.  
 1900 Brown, J. Walter, Esq.  
 1889 Browne, John, Esq. C.E.  
 1911 Bruce, Sir Charles, G.C.M.G.  
 1893 †Bryan, Joseph Davies, Esq.  
 1913 Buchanan, Rev. L. G. M.A.  
 1911 Burn, Major Henry Pelham.  
 1893 Buswell, Ven. Archdeacon H. D.  
 1892 †Butt, Rev. Canon G. H. B.A.  
 1911 Buxton, Thomas Fowell Victor, Esq. M.A. Camb.  
 1912 Cæsar, Charles Edward, Esq. F.S.I.  
 1889 †Cain, Rev. John.  
 1910 Candy, Charles Harrison, Esq. B.A. LL.M. Camb.  
 1912 Cartwright, George, Esq.  
 1907 Carus-Wilson, Henry, Esq.  
 1889 †Caudwell, Eber, Esq. M.R.C.S.E. L.R.C.P.  
 1890 †Caudwell, Paul, Esq. B.A.  
 1906 Chambré, Colonel H. W. Alan.  
 1889 Chatterton, Rev. F. W.  
 1884 Chichester, Rev. E. A. M.A. R.D. Hon. Canon of  
     Winchester.  
 1909 Chichester, Henry H. L. Esq.  
 1911 Churchill, Miss Louisa.  
 1888 Clyde, Rev. J. C. A.B. A.M. D.D.  
 1891 †Coborn, Rev. Prof. Camden M. B.A. S.T.B. Ph.D.  
 1911 Cochrane, Rev. Archibald, M.A. Camb.  
 1893 Cockin, Rev. J.  
 1905 Collison, Harry, Esq. M.A. Barr.  
 1885 †Coote, S. V. Esq. M.A. Oxon. F.R.G.S.  
 1877 Crewdson, Rev. Canon G. M.A. Camb.  
 1890 Crosbie, Rev. Howard A. M.A.  
 1914 Danson, Francis Chatillon, Esq. F.S.A.  
 1884 Daunt, The Ven. Archdeacon W. M.A.  
 1876 Dawson, Rev. W. M.A. F.R.H.S.  
 1880 Day, Rev. A. G. M.A. Oxon.  
 1888 Deedes, Ven. Archdeacon Brook, M.A.  
 1913 Denyer, Rev. George.  
 1908 Derr, Andrew F. Esq. M.A.  
 1890 †De Witt, Rev. Prof. John, D.D.

- 1898 \*Dibdin, R. W. Esq. F.R.G.S.  
 1874 Dimond-Churchward, Rev. Prebendary M. D. M.A.  
 1911 Dreaper, Miss Anna B.  
 1911 Dubois, Ernest A. Esq.  
 1888 DUNLEATH, The Rt. Hon. H. L. Mulholland, Lord, D.L.  
 1885 DURHAM, The Rt. Reverend H. C. G. Moule, D.D.  
     Bishop of.  
 1883 Ebbs, Miss Ellen Hawkins.  
 1891 Eckersley, Rev. Jas. M.A.  
 1910 Edensor, Miss Florence M.  
 1885 †Elwin, Rev. Arthur.  
 1909 Evans, George, Esq.  
 1886 Evans, Mrs. James Joyce.  
 1899 Fairbairn, H. A. Esq. M.D. M.A.  
 1899 †Farquharson, Mrs. M.  
 1892 Feilden, J. Leyland, Esq.  
 1876 Field, Rev. Arthur T. M.A. Camb.  
 1879 Finnemore, Rev. J. M.A. Ph.D. F.G.S.  
 1914 Fitzgerald, Thomas, Esq.  
 1885 Fleming, Rev. R. H. B.A. D.D.  
 1881 Fleming, Sir Sandford, K.C.M.G. LL.D. F.G.S.  
     F.R.G.S. V.-President Royal Soc. of Canada.  
 1900 Flint, Charles A. Esq.  
 1889 †FLORIDA, The Right Rev. E. G. Weed, D.D. S.T.D.  
     Bishop of.  
 1897 †Flournoy, Rev. Parke Poindexter, D.D. (Gunning  
     Prizeman, 1912.)  
 1913 †Flournoy, Professor Theodore.  
 1894 †Forster, Miss E. J.  
 1882 †Fox, C. Dillworth, Esq.  
 1913 Fox, Miss Selina F. M.D. B.S.  
 1904 †Frost, Edward P. Esq. D.L. J.P.  
 1911 Fussell, Rev. James C. L.Th.  
 1900 Gardiner, Miss Grace Dorothea.  
 1873 †Gardner, Mrs. Ernest L.  
 ♀ †Gedge, Sydney, Esq. M.A. F.R.G.S.  
 1899 Gibbon, Colonel J. Aubrey, R.E.  
 1911 Gibson, Mrs. Margaret Dunlop, LL.D. D.Litt.  
 1908 Given, J. C. M. Esq. M.D. M.R.C.P.  
 1913 Gladstone, Robert, Esq.  
 1903 Goodridge, Richard E. W. Esq.  
 1914 Gosset-Tanner, Rev. James, M.A. Oxon.  
 1911 \*Graham, Joseph, Esq.  
 1913 Grantham-Hill, W. St. G. Esq. M.D. M.R.C.S  
 1881 Gray, Charles, Esq.  
 1910 Gray, H. Lance, Esq. (HON. AUDITOR.)  
 1914 Greenlees, Archibald, Esq.  
 1877 Greenstreet, Colonel W. L. R.E.

- 1897 Greer, Mrs. Thomas.  
 1881 Grey, Rev. Principal H. G. M.A.  
 1913 Grindley, Miss Edith.  
 1901 †Griswold, Rev. H. D. M.A. Ph.D.  
 1897 Gutch, George A. Esq. C.E.  
 1910 Habershon, Miss A.  
 1914 Haigh, Alfred, Esq.  
 1903 Hamlyn-Harris, Dr. Ronald, D.Sc. F.G.S. F.L.S.  
 1899 Harlowe, David, Esq.  
 1878 Harper, The Ven. Archdeacon H. W. M.A.  
 1911 Hawtayne, W. C. C. Esq. M.I.E.E.  
 1911 Heath, Robert, Esq.  
 1904 Heaton, James, Esq. Memb. Soc. Arts.  
 1913 Heaton, Rev. W. J., B.D., F.R.Hist.S.  
 1908 †Hemming, Miss A. E.  
 1889 †Herbert, Rev. Edward P.  
 1896 Hewitt, David Basil, Esq. B.A. L.R.C.S. L.R.C.P.  
     J.P.  
 1882 Hicks, Rev. Edward, M.A. D.D. D.C.L.  
 1891 Higgens, T. W. E. Esq. A.M.I.C.E.  
 1892 †Hildesley, Rev. Principal A. H. M.A. Sanawar.  
 1912 †Hill, Prof. W. Bancroft.  
 1908 Hodgkin, Miss Alice Mary.  
 1902 †Hogarth, Rev. Oswald J. M.A.  
 1912 Hogg, Mrs. C. S.  
 1911 Holmes, Mrs. Mabel.  
 1883 †Houstoun, G. L. Esq.  
 1902 Howard, Sir Frederick, D.L. J.P.  
 1888 Howard, Joseph, Esq. B.A. Lond. J.P. F.R.G.S.  
 1911 Hughes, Thomas George, Esq.  
 1897 Hutton, Henry, Esq.  
 1890 Hyslop, Rev. James, M.A. Ph.D.  
 1904 †Irving, Rev. Alexander, D.Sc. F.G.S.  
 1902 †Jacob, Colonel Sir S. Swinton, K.C.I.E., C.V.O.  
 1914 James, Miss Ethel Denison, B.A.  
 1898 Janvier, Rev. Cæsar A. Rodney, M.A. (Princeton).  
 1902 Jessop, Arthur, Esq.  
 1912 Johns, Rev. C. H. W. M.A. Litt.D. Master of  
     St. Catherine's College, Camb.  
 1910 Johnson, Miss E. Zoë.  
 1911 Johnson, Rev. Gifford H. M.A.  
 1896 †Johnstone, Miss J. A.  
 1912 Karslake, John B. P. Esq. M.A. F.S.A.  
 1913 Kemble, Mrs. Stephen Cattley.  
 1913 Kerr, Robert, Esq.  
 1887 Kirkpatrick, Rev. R. C. M.A. Oxon. and Dub.  
 1880 †Knight, Rev. C. F. M.A. Camb.  
 1884 Lach-Szyrma, Rev. W. S. M.A. Oxon.

- 1905 Lampe, Rev. Joseph J. D.D. Ph.D.  
 1913 Lancaster, Rev. George Harold, M.A. F.R.A.S.  
 1914 Laughton, Colonel A. F. C.B.  
 1873 Lawrence, Ven. Archdeacon C. D. M.A.  
 1873 Lea, Miss G. E.  
 1914 Lee, Smetham, Esq.  
 1905 Lees, Rev. Harrington Clare, M.A.  
 1901 LEFROY, The Right Rev. G. A. D.D. Bishop of Calcutta.  
     India.  
 1911 Leslie, Wilson Edwards, Esq.  
 1873 †Lewis, Rev. J. S. M.A.  
 1911 Lightfoot, Rev. J. A. M.A. Oxon. Principal C.M.S.  
     College, Islington, N.  
 1897 Linton, Rev. E. C. M.A. Camb.  
 1883 †Lock, Rev. W. M.A. D.D. Oxon. Fell. Jun. Bursar and  
     Tutor of Magdalen, Warden of Keble College.  
 1892 †Logan, The Honourable James D.  
 1901 Lönnbeck, Fredrick Waldemar, Stockholm.  
 1909 Lovely, Rev. F. Cecil, B.A. Oxon.  
 1887 Lowber, Rev. Chancellor J. W. M.A. LL.D. D.C.L.  
     Sc.D. Ph.D. P.S.D. F.R.G.S. Litt.D. M.R.A.S.  
 1888 Lowrie, Rev. S. T. M.A. D.D.  
 1910 Macgregor, Colonel Henry Grey, C.B.  
 1913 Macgregor, Ronald, Esq.  
 1909 MacEwan, Miss Madge D.  
 1914 Mackinlay, Miss Norah Ure.  
 1882 Maitland, Rev. H. F. M.A. Oxon.  
 1912 †Major, Charles H. F. Esq.  
 1911 Mansel-Pleydell, Rev. J. C. M. M.A., Canon of  
     Salisbury.  
 1911 †Manson, Miss Amy.  
 1914 ¶\*Margolicouth, Rev. Prof. David S. M.A. D.Litt.  
 1909 ¶\*Marston, Rev. Herbert J. R. M.A. Durh.  
 1913 Martin, John Benjamin, Esq.  
 1893 †Martineau, A. E. Esq. (Ind. Civ. Serv.).  
 1892 ¶†Masterman, E. W. Gurney, Esq. M.D. Durh. F.R.C.S.  
     F.R.G.S. D.P.H.  
 1901 Matthews, Ernest R. Esq. A.M.I.C.E. F.G.S.  
 1913 †Maunder, Mrs. Annie Scott Dill.  
 1912 Maunder, George William, Esq.  
 1909 Maunsell, Rev. F. W. M.A. Dub.  
 1888 MAXWELL of Calderwood, Lady.  
 1911 ¶McCormick, Rev. Samuel Black, D.D. LL.D. Chan-  
     cellor of Pittsburg University.  
 1913 McNeile, Capt. Malcolm, R.N.  
 1892 ¶Mello, Rev. J. Magens, M.A. F.G.S.  
 1889 Millingen, J. R. Van, Esq.  
 ¶ Milner, Rev. W. M. H. M.A. F.R.G.S.

- 1911 Minifie, Rev. William C. Ph.D. D.D. F.R.S.L.  
 1903 MITCHINSON, Right Rev. Bishop J. D.D. D.C.L.  
 1899 Moffat, Rev. J. S. C.M.G.  
 1892 †Molony, Major Francis A. R.E.  
 1913 Monck, Wm. Henry Stanley, Esq. M.A.  
 1907 Moore, Rev. Henry N. M.A.  
 1912 Morier, Miss A. C.  
 1882 Moule, Ven. Archdeacon A. E. B.D. D.D.  
 1878 †Mullings, John, Esq.  
 1893 Munt, Harry G. Esq.  
 1914 Nast, Rev. Albert J. M.A. D.D.  
 1871 †Nelson, J. H. Esq. M.A.  
 1885 †Neve, A. Esq. F.R.C.S. L.R.C.P. Edin.  
 1914 Newbegin, Algernon Montague, Esq. F.R.A.S.  
 1888 †Nimr, Faris, Esq. (Ed. "Mouktataf"), Cairo.  
 1887 Norbury, Inspector-Gen. Sir H. F. K.C.B. M.D.  
     F.R.C.S. K.H.S. R.N.  
 1912 Nugent, Miss Sophia M. A.  
 1879 †Oake, Rev. R. C.  
 1886 Oates, Rev. Alfred.  
 1880 O'Dell, Professor Stackpool E.  
 1902 Olsen, Ole Theodor, Esq. M.A. Ph.D. D.Sc. F.L.S.  
     F.R.A.S. F.R.G.S. Ord., Wasa, Sweden; Ord.  
     St. Olaf, Norway; St. Andrew's Terrace, Grimsby.  
 1914 Orr, Frederic Layton Esq. M.D. Lond.  
 1911 Outram, Francis D. Esq. late Lieut. R.E. A.M.I.C.E.  
 1913 Panin, Ivan, Esq.  
 1883 Paterson, Rev. T. M. B.  
 1903 Payne, George Herbert, Esq.  
 1885 †Payne, J. A. Otonba, Esq. F.R.G.S. Chief Registrar  
     and Taxing Master of the Supreme Court of Lagos.  
 1913 Payne, Rev. W. Laporte.  
 1894 Peake, Professor A. S., M.A. D.D. Oxon. Fell.  
     Merton, late Tutor Mansfield Coll. Oxon.  
 1911 Pearce, The Dowager Lady.  
 1908 Peirce, Harold, Esq.  
 1913 Pelly, Mrs. Agnes H.  
 1887 †Penford, Rev. E. J.  
 1908 Perkins, E. Walter, Esq.  
 1911 Pickersgill-Cunliffe, Miss Mary H.  
 1884 Piper, F. H. Esq.  
 1881 Pippet, Rev. W. A.  
 1912 Plaister, William Henry, Esq. M.R.C.S.  
 1896 Plantz, Rev. President Samuel, D.D. Ph.D.  
 1911 Poate, William Henry, Esq.  
 1881 Pratt, Rev. J. W. M.A. D.D.  
 1880 †Priestley, Rev. J. J. S.P.G.  
 1888 †Pringle, of Torwoodlee, Mrs.

- 1903 Proctor, Henry, Esq. H.M.C.S. M.R.A.S. F.R.S.L.  
 1912 Radstock, The Rt. Hon. Lord.  
 1891 Reddie, Edward J. Esq.  
 1876 Rendell, Rev. Canon A. M. M.A. Camb.  
 1899 Revie, Dugald, Esq. M.B. C.M. Glas. Univ. late Free  
     Church of Scot. Medical Mission.  
 1877 Rhodes, Rev. D.  
 1911 Rice, Philip, Esq. M.D.  
 1912 Ridley, Rev. John.  
 1885 Riggs, Rev. J. F. B.A. M.A. D.D.  
 1910 Roberts, Rev. Samuel.  
 1899 ¶ Robinson, Rev. Andrew Craig, M.A.  
 1895 Robinson, Maj.-General C. G. R.A.  
 1911 Rose, Reverend P.  
 1908 Rouse, Miss Ellen.  
 1912 Rudd, H. P. Esq.  
 1891 St. Johns, New Brunswick Free Pub. Lib.  
 1913 Saulez, Rev. William H. M.A. B.D.  
 1903 Salmensaari, Herra Sulo, M.A. Finland.  
 1881 Sandford, H. Esq.  
 1895 SASKATCHEWAN, Rt. Rev. J. Newnham, D.D. Bishop of.  
 1891 \* ¶ Schofield, Alfred Taylor, Esq. M.D.  
 1908 Schwartz, John, Esq. Junior.  
 1912 Scott, John, Esq. J.P.  
 1906 Searle, Malcolm W. Esq. K.C. M.A. LL.B.  
 1876 † Seeley, Rev. E.  
 1910 Shann, William Arthur, Esq. M.B. Cantab.  
 1875 ¶ Sharp, Rev. J. M.A. Queen's Coll. Oxon.; late Editorial  
     Superintendent, Bible Soc.  
 1882 Shepherd, Mrs. F. Wolfskill De.  
 1911 Sheppard, Rev. James W. ffranck, M.A. Dub.  
 1901 † Sherard, Rev. Clement E. M.A. Camb.  
 1882 Shore, Captain the Hon. H. N. R.N.  
 1906 Sidebottom, Colonel W. J.P.  
 1876 ¶ \* † Sinclair, The Ven. Archdeacon W. Macdonald, M.A.  
     D.D. form. Sch. of Balliol, Oxon.  
 1903 SINGAPORE, Rt. Rev. C. J. Ferguson Davie, Bishop of.  
 1909 Skrine, Rev. J. H. M.A. D.D.  
 1892 Smith, Hon. Sir Charles Abercrombie, M.A. Fell.  
     St. Peter's Coll. Camb.  
 1873 Smith, Major-General E. Davidson.  
 1896 Smith, His Honor Judge George Hugh.  
 1893 Smith, Sir George J. J.P. D.L.  
 1906 \* Smith, Heywood, Esq. M.A. M.D.  
 1891 Smith, S. Ashley, Esq. M.D.  
 1901 † Smith-Bosanquet, Miss Ella.  
 1914 Smith, Mrs. Helen Dill, M.D. B.Ch.

- 1914 Smith, Lt.-Colonel Henry I.M.S. V.H.S. B.A. M.D.  
M.Ch. M.A.O.
- 1902 Smyth, William Woods, Esq. L.R.C.S. L.R.C.P. L.M.
- 1913 Solade-Solomon, J. E. Esq.
- 1879 †Statham, E. J. Esq. A.I.C.E.
- 1914 Sterry, John, Esq.
- 1911 Stevens, Rev. Thomas Palmer.
- 1879 †Stewart, Alex. Esq.
- 1912 Stewart, Rev. David Alexander, M.A. Camb.
- 1872 Stewart, Sir Mark J. McTaggart, Bart. M.A. M.P.
- 1913 Stock, Eugene, Esq. D.C.L.
- 1890 †Stokes, Anson Phelps, Esq. Vice-Pres. XIX Cent.  
Club U.S.A. Memb. Council S.S. Assoc.
- 1894 Stokes, James, Esq., Officer of the Legion of Honour.
- 1887 Stokes, Rev. W. Fenwick, M.A.
- 1903 Stovin, Mrs. Caroline.
- 1911 Strange, Miss Mary R.
- 1902 †Strong, John Alexander, Esq.
- 1902 †Strong, Rev. Rupert S. M.A. Camb.
- 1914 Sutton, Martin Hubert Foquett, Esq. F.L.S. F.R.G.S.
- 1895 Swinburne, Hon. George, C.E.
- 1899 Symonds, Hon. J. W.
- 1899 †Talmage, Professor James E. Ph.D. F.R.M.S. F.G.S.  
F.R.S.E. F.G.S.A.
- 1913 Tambyah, T. Isaac, Esq.
- 1882 Taylor, Rev. Hugh Walker, M.A.
- 1891 †Taylor, Rev. Stephen, B.A. Corpus C. Coll. Camb.
- 1905 Thomas, Rev. W. H. Griffith, D.D. late Principal  
Wycliffe Hall, Oxford.
- 1911 Thornton, Rev. Claude Cyprian, M.A. Camb.
- 1906 Tindall, Miss Caroline.
- 1910 Titterington, Edw. J. G. Esq. M.A.
- 1909 Trench, F. P. Esq. M.B. F.R.C.S. Edin.
- 1911 Trotter, Mrs. Edward.
- 1902 Trumbull, C. G. Esq. Philadelphia.
- 1882 TUTTLE, Right Rev. D. S. D.D. Bishop of Missouri.
- 1902 Twigg, John Hill, Esq. late India Civil Service.
- 1912 Van Someren, Colonel G. J.
- 1913 Vickers, Miss M. B.Sc.
- 1912 Vismes, H. J. H. de Esq.
- 1893 Waller, Rev. C. Cameron, M.A. Camb. Principal of  
Huron Coll.
- 1889 †Wallis, Right Rev. Frederic, D.D. late Bishop of  
Wellington.
- 1892 Walter, Rev. H. M. M.A. Oriel Oxon.
- 1913 Walton, Rev. Wm. H. Murray, B.A. Camb.
- 1894 Ward, H. B. Esq.
- 1881 Waring, F. J. Esq. C.M.G. M.Inst.C.E.

- 1895 Way, the Right Hon. Sir Samuel James, D.C.L. LL.D.  
Chief Justice S. Aust.
- 1895 Weaver, George M. Esq.
- 1879 Webb-Peploe, Rev. Prebendary H. W. M.A. Camb.
- 1911 Wedekind, George Hermann, Esq.
- 1893\*†~~WELLDON~~, Right Rev. Bishop J. E. C. D.D. Dean of Manchester.
- 1911 Weller, William, Esq.
- 1887 Wherry, Rev. E. M. D.D. Lodhiana, Punjab, India.
- 1907 ~~White~~, Rev. G. E. M.A. D.D. Dean of Anatolia College.
- 1882 ~~White~~, Rev. J. M.A. T.C.D. Hon. M.A. Magd. Oxf.
- 1912 White, W. Duncan, Esq.
- 1894 †Whitehead, Rev. George, B.A. Lond.
- 1911 Whitfield, Peter, Esq.
- 1881 ~~Whiting~~, Rev. J. Bradford, M.A. Camb.
- 1914 Wigg, Charles Barnard, Esq. M.I.E.E.
- 1870~~†~~~~Whitmee~~, Rev. S. J. F.R.G.S. Cor. Mem. Z.S.
- 1881 †Williams, H. S. Esq. M.A. F.R.A.S. A.C.
- 1876 Williams, Right Rev. William Leonard, B.A. late Bishop of Waiapu.
- 1896 †Wills, Harold Temple, Esq. M.A. B.Sc.
- 1910 Wilson, Henry, Esq.
- 1912 Wingate, Sir Andrew, K.C.I.E.
- 1885 Winslow, Rev. W. C. D.D. D.C.L. LL.D. L.H.D. D.Sc.  
S.T.D. Ph.D. Amer. Vice - President Egypt Exploration Fund.
- 1913 Winstone, Miss Jessie.
- 1889 †Winter, The Ven. Archdeacon G. Smith.
- 1877 Wood, The Venerable A. Maitland, M.A. Archdeacon of Macclesfield.
- 1893 Wood, Peter F. Esq. F.R.G.S.
- 1899 Wood, Walter James, Esq. F.R.M.S.
- 1914 Wood, John, Esq. Hon. Sec. Evangelization Soc. and Evangelical Alliance.
- 1892 †Woodd, Rev. C. H. Basil, M.A. Camb. Nat. Sci. Trip.  
1890, M.A.
- 1913 Woods, Rev. W. Hervey, D.D. Litt.D.
- 1913 Wolsey, Miss Florence.
- 1877 Worthington, T. Esq. B.A. T.C.D.
- 1903 †Wright, Rev. Ernest Alexanderson, M.A.
- 1912 Wyatt, Herman Richard, Esq.
- 1914 Wynne, Mrs. H.
- 1912 Yeldham, Miss F. A., B.Sc.
- ~~F~~ Young, Rev. Charles, M.A. Camb.
- 1912 Young, Sir W. Mackworth, K.C.S.I.

## MISSIONARY ASSOCIATES.

- Anstey, Rev. Martin, M.A. B.D. London City Mission, E.C.  
 ¶ Baylis, Rev. F. Ferndale, Warren Road, Reigate.  
 Bomford, Rev. Trevor, M.A. Edward's College, Peshawar, Punjab.  
 Byrde, Rev. Louis, B.A. Yung Chow Fu, Hunan, China.  
 Carpentaria, Right Rev. Bishop of Thursday Island, Queensland.  
 Cavalier, Rev. A. R. Lindula, Northwood, Middlesex.  
 Elwin, Rev. W. H. B.A. 7, Sasugaya Cho, Koishikawa, Tokyo.  
 Fisher, Rev. William M.A. Kingham Rectory, Chipping Norton.  
 Joseland, Rev. Frank P. Amoy, China.  
 Moore, Rev. E. A. L. Royapet House, Madras.  
 Moule, Ven. Archdeacon W. S. M.A. Ningpo, China.  
 Mylrea, C. Stanley G. Esq. M.D. Koweit, Persian Gulf.  
 Reade, Miss F. Theological Library, Cuddalore, S. India.  
 Robinson, Miss L. G. Berhampore, Bengal.  
 ¶ Thornton, Right Rev. Bishop S. D.D. 80, Elsham Road, W.  
 Turner, Rev. G. Reynolds, M.B. Hwei-an-hsein, S. China.  
 Wilkinson, Rev. D. H. D. M.A. 29, Murray Road, Wimbledon.  
 Willis, The Ven. Archdeacon W. L. Cambridge, Auckland, New Zealand.

## LIBRARY ASSOCIATES.

- Adelaide Public Library, *South Australia*.  
Berlin Royal Library (per Asher & Co.).  
Birmingham Free Library.  
Boston Public Library (per Kegan Paul & Co.).  
Chicago Public Library.  
Chicago University, *U.S.A.*  
Cornell University, *U.S.A.*  
Dublin Society, Royal.  
Harvard University (per Kegan Paul & Co.).  
Librairie Le Soudier, 174B, *St. Germaine, Paris*.  
Manchester, The John Rylands Library.  
Melbourne Public Lib. and Museum, *Melbourne, Victoria*.  
Michigan, University of Ann Arbor.  
Mitchell Library (F. T. Barrett, Esq.), 21, *Miller Street, Glasgow*.  
Newcastle-on-Tyne Public Library.  
New York Public Library, *New York, U.S.A.*  
Nottingham Public Library.  
Ottawa, Library of Parliament.  
Preston, Public Library.  
Rochester Theological Seminary, *U.S.A.*  
Rugby School Library.  
St. Andrews University Library.  
Sydney Free Library, *New South Wales*.  
Texas University, *Austin, Texas, U.S.A.*  
Wellington, *New Zealand, General Assembly Rooms Library*.  
Yale University Library, *New Haven, Conn., U.S.A.*

SOCIETIES EXCHANGING TRANSACTIONS WITH  
THE INSTITUTE.

- American Academy of Arts and Sciences.  
American Geographical Society.  
American Geological Society.  
American Journal of Archæology.  
American Journal of Philology (Johns Hopkins Press).  
American Philosophical Society.  
Anthropological Society, New York.  
Anthropological Society, Washington.  
Archæological Institute of America.  
Canadian Institute.  
Colonial Museum of New Zealand.  
Geographical Society of California.  
Geographical Society of the Pacific.  
Geological Society.  
Harvard Museum of Comp. Zoology.  
Manitoba Historical and Scientific Society.  
New Zealand Institute.  
Nova Scotian Inst. of Natural Science.  
Royal Asiatic Society, Bombay.  
Royal Colonial Institute.  
Royal Dublin Society.  
Royal Geographical Society.  
Royal Institution.  
Royal Irish Academy.  
The Royal Society.  
Royal Society of Canada.  
Royal United Service Institution.  
Smithsonian Institution (Washington).  
Société Scientifique du Chili.  
Society of Arts.  
Society of Biblical Literature, U.S.  
Soc. Bib. Lit. and Exeg., Boston.  
Sydney Museum, New South Wales.  
United States Bureau of Ethnology.  
United States Geological Survey.  
United States Government Geological and Geographical Survey.  
United States Government Reports.

## HON. CORRESPONDING MEMBERS.

---

### HOME.

- 1892 Clifford, Right Rev. A. D.D.  
 1890 ¶Geikie, Prof. James, D.C.L. LL.D. F.R.S. F.R.S.E. F.G.S.;  
     Prof. Geo. and Min. Univ. Edin. Hon. Mem. Phil. Soc.  
     York, Geo. Soc. Stockholm and Geo. Palæo. Hydrol.  
     Belg. Memb. Amer. Phil. Soc. Cor. Memb. Acad. Sci.  
     Phila. 31, *Merchiston Avenue, Edinburgh*.  
 1881 ¶Guppy, H. B. Esq. M.B. F.G.S. Mem. Min. Soc. &c. *Rosario, Salcombe, S. Devon*.  
 1903 Howorth, Sir Henry H. K.C.I.E. F.R.S. 30, *Collingham Place, S.W.*  
 1888 ¶Hughes, Prof. T. M'K. M.A. F.R.S. F.S.A. F.G.S.; Wood-  
     wardian Prof. of Geology, Cambridge, Trin. Coll.  
     Camb. *Ravensworth, Brooklands Avenue, Cambridge*.  
 1886 Mylne, Right Rev. L. G. D.D. *Alvechurch Rectory, Birmingham*.  
 1903 ¶Petrie, Prof. W. M. Flinders, D.C.L. Litt.D. LL.D.  
     F.R.S. 18, *Well Road, Hampstead, N.W.*  
 1889\* ¶Pinches, Theo. G. Esq. LL.D. *Sippara, 10, Oxford Road, Kilburn, N.W.*  
 1912 Royston, Rt. Rev. P. S. D.D.  
 1889 ¶Sayce, Rev. Prof. A. H. M.A. LL.D. Fellow and Tutor  
     Queen's Coll. Oxford.  
 1899 Turner, Sir William, V.D. M.B. LL.D. D.C.L. D.Sc. F.R.S.  
     Prof. Anatomy, Univ. Edin. 6, *Eton Terrace, Edinburgh*.  
 1890 Wakefield, Right Rev. G. R. Eden, D.D. Bishop of.  
 1905 Woodward, Dr. Henry, F.R.S. F.G.S. 129, *Beaufort Street, Chelsea*.
- 

### FOREIGN.

- 1895 HIS MAJESTY KING MOMOLU MASSAQUOI, West Africa.  
 1881 Abbe, Professor Cleveland, M.A. Assistant in the office of  
     the Chief Signal Officer of the Weather Bureau, U.S.A.  
 1883 Beckwith, The Right Rev. J. W. D.D. U.S.A.  
 1884 Herzog, Right Rev. E. D.D. Bishop of the Old Catholic  
     Ch. of Switzerland, *Berne*.  
 1895 Hilprecht, Rev. Professor H. V. D.D. *Univ. of Pennsylvania. U.S.A.*  
 1893 Hommel, Prof. Fritz, Ph.D. LL.D. Prof. of Semitic  
     Languages in Univ. of Munich, *Leopolds Strasse, Munich*.

- 1889 d'Hulst, Count Riamo, *Cairo.*  
 1878 Jaggar, Right Rev. Bishop T. A. D.D. Bishop of S. Ohio,  
     *Episcopal Rooms, Cincinnati, Ohio, U.S.A.*  
 1895 Lugard, His Excellency Brigadier-General Sir F. J. D. C.B.  
     D.S.O. Governor of Hong Kong.  
 1896 ¶Macloskie, Prof. G., D.Sc. LL.D. Prof. Biology (Princeton),  
     U.S.A.  
 1883 ¶Maspero, Prof. Sir Gaston, K.C.M.G. D.C.L. *Collège de*  
     *France, Cairo, Egypt; 24, Avenue de l'Observatoire,*  
     *Paris.*  
 1904 Nansen, Prof. Fridtjof, D.Sc. LL.D. D.C.L. *Lysaker, Norway.*  
 1883 ¶Naville, Prof. E., D.C.L. LL.D. F.S.A., *Malagny, Geneva,*  
     *Switzerland.*  
 1888 North China, Right Rev. C. P. Scott, D.D. Bishop of,  
     *Peking, North China.*  
 1912 ¶Roget, Professor F. F. *Geneva.*  
 1890 Ottawa, Most Rev. C. Hamilton, D.D. D.C.L. Bishop of.  
 1895 Sabatier, Professor Armand, M.D. *Montpellier, France.*  
 1898 Stosch, Rev. Prof. D.D. 24, *Lutzow Street, Berlin.*  
 1904 ¶Upham, Warren, Esq. M.A. D.Sc. F.G.S. Amer. Sec.  
     Minnesota Historical Society.  
 1880 Vail, Right Rev. T. H. D.D. Bishop, *U.S.A.*  
 1898 Zahn, Rev. Prof. T. H. *Erlangen.*

## ADDITIONAL HON. CORRESPONDENTS.

- Adams, Rev. Richard, M.A. T.C.D. 87, *Burntwood Lane, S.W.*  
 Anderson, J. F. Esq. F.R.G.S. *Melrose, Curepipe, Mauritius.*  
 Batchelor, W. Esq. 7, *Agnes Road, Northampton.*  
 Brown, Rev. J. B. M.A. *St. James' Vicarage, Darwen.*  
 Burke, Rev. R. G. M.A. LL.B. *Lilydale, Melbourne.*  
 Caldecott, Rev. Professor A. M.A. D.D. D.Litt. 13, *Howden Road, S. Norwood, S.E.*  
 Corbet, Frederick H. M. Esq. Barrister-at-Law, F.R.C.I. F.I.Inst.  
     Hon. Executive Officer for Ceylon at the Imperial Institute, 42, *Kenilworth Avenue, Wimbledon.*  
 Davies, Rev. R. V. Faithfull, M.A. 15, *Southend Road, Beckenham.*  
 Davis, Rev. W. B. M.A. *Lupton, Torquay.*  
 Dixon, Prof. J. M. *Washington Univ. St. Louis, Mo. U.S.A.*  
 East, Rev. H. E. *Leithfield, Christchurch, New Zealand.*  
 ¶Eells, Rev. M. M.A. *Union City, Mason Co. Washington, D.C., U.S.A.*  
 Finn, Mrs. 75, *Brook Green, W.*  
 Fleming, Rev. T. S. F.R.G.S. *Boston Spa, Leeds (JF).*  
 ¶Frost, Edward P. Esq. D.L. J.P. *West Wrating Hall, Cambridge.*  
 Gissing, Admiral C. E. R.N. (ret.) F.R.G.S. *United Service Club, S.W.; Homestead, Queen's Park, South Drive, Bournemouth.*  
 Gubbins, Surgeon-General Sir W. L. M.D. K.C.B. M.V.O. K.H.S. Army Medical Staff, *War Office, 18, Victoria Street, S.W.; St. John's, Worcester Park, Surrey.*  
 Harris, A. H. Esq. c/o I.M. Customs, *Hong Kong, China.*  
 Harrison, Rev. A. J. B.D. LL.D. *Magdalen Lodge, North End, Newcastle.*  
 Hassell, Joseph, Esq. *Brittany Lodge, London Road, St. Leonards.*  
 Hechler, Rev. Prof. W. H. *City House Hotel, 160, City Road, E.C.*  
 Hetherington, Rev. J. *St. Peter's Vicarage, Hull.*  
 Hudson, Rev. Canon J. C. M.A. *Thornton Vicarage, Horn-castle.*  
 Hutchinson, Rev. A. B. *Fukuoka, Japan.*  
 Hutchinson, Rev. T. S. M.A. 13, *Aldridge Road Villas, Westbourne Park, W.*  
 Kerr, Robert, Esq. 14, *Loudoun Terrace, Kelvinside, Glasgow.*  
 ¶Kidd, Walter A. Esq. M.D. B.S. M.R.C.S. F.Z.S. 12, *Montpelier Row, Blackheath.*  
 Kydd, Robert, Esq. 164, *Stobcross Street, Glasgow.*  
 McLeod, Rev. R. F. *Walsden Vicarage, Todmorden.*  
 Nutt, Rev. George, *The Rectory, Lluidas Vale, Jamaica.*  
 Oates, Rev. W. *Somerset East, South Africa.*

- O'Donel, G. H. Esq. *Mission School, Seoni Chappara, C.P. India.*  
 Oliver, Rev. T. D.D. 118, *Hampton Road, Southport.*  
 Oulton, Rev. R. C. M.A. B.D. 17, *Warrington Place, Dublin.*  
 ¶Parker, Prof. H. W. 47, *7th Avenue, New York, N.Y. U.S.A.*  
 ¶Peet, Rev. Stephen D. Ph.D. Editor "American Antiquarian,"  
     5817 *Madison Avenue, Chicago, Ill. U.S.A.*  
 Perowne, Edward S. M. Esq. F.S.A. 20 *Randolph Road, Maida Vale, W.*  
 Petherick, Rev. G. W. B.A. *Hawksleigh, Southport.*  
 Postlethwaite, J. Esq. F.G.S. *Cockermouth, Keswick and Penrith Railway, Keswick.*  
 Ragg, Rev. F. W. M.A. *The Manor House, Lower Boddington, Byfield.*  
 Ramanathan, P. B.A., M.R.A.S., F.R.H.S., *Manonmani Villas, Chintadripet, Madras.*  
 Redman, Rev. J. *Simla, India.*  
 Robertson, Rev. Cavaliere Alex. D.D. *Ca' Struan, Ponte della Salute, Venice.*  
 Shipham, Rev. Arthur, *The Mound, Matlock Bridge.*  
 Simpson, Prof. J. Y. M.A. D.Sc. F.R.S.E. *New College, Edinburgh.*  
 Stefansson, Jon, Esq. Ph.D.  
 Storrs, Rev. W. T. B.D. *Vicarage, Sandown, I.W.*  
 Thomas, Rev. James, British and Foreign Bible Society,  
     146, *Queen Victoria Street, E.C.*  
 ¶Tisdall, Rev. W. St. Clair, M.A. D.D. 32, *Kimbolton Road, Bedford.*  
 Weidemann, Professor Alfred, Ph.D. 2, *König St. Bonn.*  
 Whiteway, Rev. R. W. B. *Beulah House, Selby, Yorks.*  
 Williams, W. Esq. Supt. Govt. Telegraphs, India (ret.), *Crofton, Combe Park, Bath.*  
 Willis, R. N. Esq. M.B, 2, *Carlton Terrace, Rathmines, Dublin.*  
 Willis, T. Gilbert, Esq. 4, *Kildare Street, Dublin.*  
 Winslow, Rev. W. C. Ph.D. D.D. D.C.L. LL.D. D.Sc. 525, *Beacon Street, Boston, U.S.A.*  
 ¶Zimmerman, Rev. Prof. Jeremiah, D.D. LL.D. L.H.D. 107,  
     *South Avenue, Syracuse, N.Y., U.S.A.*  
 ¶Zwemer, Rev. S. M. M.A. D.D. F.R.G.S. *Bahrein, Persian Gulf.*

OBJECTS, CONSTITUTION, AND BY-LAWS

OF

The Victoria Institute,

OR

Philosophical Society of Great Britain.

Adopted at the First Annual General Meeting of the Members and Associates,  
May 27th, 1867, with Revisions of 1874-75, 1910 and 1912.

---

§ I. *Objects.*

1. THE VICTORIA INSTITUTE, or PHILOSOPHICAL SOCIETY OF GREAT BRITAIN, is established for the purpose of promoting the following objects, viz.:—

First. To investigate fully and impartially the most important questions of Philosophy and Science, but more especially those that bear upon the great truths revealed in Holy Scripture; with the view of reconciling any apparent discrepancies between Christianity and Science.

Second. To associate together men of Science and authors who have already been engaged in such investigations, and all others who may be interested in them, in order to strengthen their efforts by association; and, by bringing together the results of such labours, after full discussion, in the printed Transactions of an Institution: to give greater force and influence to proofs and arguments which might be little known, or even disregarded, if put forward merely by individuals.

Third. To consider the mutual bearings of the various scientific conclusions arrived at in the several distinct branches into which Science is now divided, in order to get rid of contradictions and conflicting hypotheses, and thus promote the real advancement of true science; and to examine and discuss all supposed scientific results with reference to final causes, and the more comprehensive and fundamental principles of Philosophy proper, based upon faith in the existence of one Eternal God, who, in His wisdom, created all things very good.

Fourth. To publish Papers read before the Society in furtherance of the above objects, along with full reports of the discussions thereon, in the form of a Journal, or as the Transactions of the Institute.

Fifth. When subjects have been fully discussed, to make the results known by means of Lectures of a more popular kind, and to publish such Lectures.

Sixth. To publish English translations of important foreign works of real scientific and philosophical value, especially those bearing upon the relation between the Scriptures and Science; and to co-operate with other philosophical societies at home and abroad, which are now or may hereafter be formed, in the interest of Scriptural truth and of real science, and generally in furtherance of the objects of this Society.

Seventh. To found a Library and Reading Rooms for the use of the Members and Associates of the Institute, combining the principal advantages of a Literary Club.

## § II. *Constitution.*

1. The Society shall consist of Members and Associates, who in future shall be elected as hereinafter set forth.
2. The government of the Society shall be vested in a Council (whose Members shall be chosen from among the Members and Associates of the Society and be professedly Christians), consisting of a President, two or more [not exceeding seven] Vice-Presidents, an

Honorary Treasurer, and twelve or more [not exceeding twenty-four] Ordinary Members of Council. The Trustees for the time being of the funds of the Institute shall be *ex officio* Members of the Council.

3. The President, Vice-Presidents and Honorary Officers [other than the Trustees for the time being of the funds of the Institute] shall be elected annually at the Annual General Meeting of the Institute, with power to the Council to fill up any casual vacancies.

At the Annual General Meeting in each year, one-third of the Ordinary Members of Council [or if their number be not a multiple of three then the number nearest to one-third] shall also retire, in order of seniority of election to the Council, and be eligible for re-election : as between Members of equal seniority the Members to retire shall be chosen from among them by ballot [unless such Members shall agree between themselves]. Vacancies thus created shall be filled up at the Annual General Meeting, but any casual vacancies may be filled up by the Council.

4. For the annual elections taking place under Rule 3, nominations may be made by Members of the Institute and sent to the Secretary not later than December 1st in any year. The Council may also nominate for vacancies, and all nominations shall be submitted to the Members and Associates at the time when notice of the Annual General Meeting is posted.

If more nominations are made than there are vacancies on the Council the election shall be by ballot.

5. Any person desirous of becoming a Member or Associate shall send to the Secretary an application for admission, which shall be signed by one Member or Associate recommending the Candidate for admission.

6. Upon such application being transmitted to the Secretary, the candidate may be elected by the Council, and enrolled as a Member or Associate of the Victoria Institute, in such a manner as the Council may deem proper.

7. Application for admission to join the Institute being made as before laid down, such application shall be considered as *ipso facto* pledging all who are thereupon admitted as Members or Associates to

observe the Rules and By-laws of the Society, and as indicative of their desire and intention to further its objects and interests ; and it is also to be understood that only such as are professedly Christians are entitled to become Members.

8. Each Member shall pay an Entrance Fee of One Guinea, which the Council may from time to time suspend, and an Annual Contribution of Two Guineas. A Donation of Twenty Guineas shall constitute the donor a Life Member.

9. Each Associate shall pay an Annual Contribution of One Guinea. A donation of Ten Guineas shall constitute the donor a Life Associate.

10. The Annual Contributions shall be considered as due in advance on the 1st day of January in each year, or, by resolution of the Council, on the anniversary of election, and shall be paid within three months after that date ; or, in the case of new admissions within three months after election.

11. Any Member or Associate who contributes a donation in one sum of not less than Sixty Guineas to the funds of the Institute shall be enrolled as a Vice-Patron thereof, and will thus also become a Life Member or Life Associate, as the case may be.

12. Should any member of the Royal Family hereafter become the Patron, or a Vice-Patron, or Member of the Institute, the connexion shall be regarded as purely Honorary ; and none of the Rules and By-laws relating to donations, annual contributions or obligations to serve in any office of the Society, shall be considered as applicable to such personages of Royal Blood.

13. Any Member or Associate may withdraw from the Society at any time, by signifying a desire to do so by letter, addressed to the Secretary ; but such shall be liable for the contribution of the current year, and shall continue liable for the annual contribution, until all sums due to the Society from such Member or Associate shall have been paid, and all books or other property borrowed from the Society shall have been returned or replaced.

14. Should there appear cause, in the opinion of the Council, for the exclusion from the Society of any Member or Associate, a private intimation may be made by direction of the Council, in order to give such Member or Associate an opportunity of withdrawing from the

Society ; but, if deemed necessary by the Council, a Special General Meeting of Members shall be called for the purpose of considering the propriety of expelling any such person : whereat, if eleven or more Members shall ballot, and a majority of those balloting shall vote that such person be expelled, he shall be expelled accordingly. One month's notice, at least, shall be given to the Members of any such Special General Meeting.

15. Non-resident Members and Associates, or others desirous of promoting the objects and interests of the Institute, may be elected by the Council to act as corresponding Members abroad, or as Honorary Local Secretaries, if within the United Kingdom, under such arrangements as the Council may deem advisable.

16. The whole property and effects of the Society shall be vested in two or more Trustees, who shall be chosen at a General Meeting of the Society. The Trustees are empowered to invest such sums as the Council may, from time to time, place in their hands, in, or upon any of the Stocks, Funds, or Securities, for the time being, authorized by statute for the investment of trust funds by trustees, and shall have the usual powers of trustees in regard thereto. [The President, the Hon. Treasurer, and the Secretary may officially give effect to such resolutions as a General Meeting may pass in regard thereto.]

17. All moneys received on account of the Institute shall be duly paid to its credit at the Bankers, and all cheques shall be drawn, under authority of the Council, and shall be signed by any two of the following, the Chairman of Council, the Honorary Treasurer and the Secretary.

18. The accounts shall be audited annually, by a Committee, consisting of two Members or Associates,—one of whom may be on the Council,—to be elected at an Ordinary Meeting of the Society preceding the Anniversary Meeting. This Committee shall make a written Report to the Council at the first Meeting after such audit, and also to the Institute, upon the day of the Annual General Meeting,—stating the balance in the Treasurer's hands and the general state of the funds of the Institute.

### § III. *By-laws (Privileges).*

1. A Member or Associate, when elected, shall be so informed by the Secretary in a printed copy of the letters, Form B, in the Appendix.

2. Members and Associates shall not be entitled to any privileges, or have the right to be present, or to vote at any of the Meetings of the Society, till they have paid the contributions due by them.

3. Annual subscriptions shall be considered as in arrear, if not paid within three months after they become due.

4. Should any annual subscription remain in arrear for six months the Secretary shall forward to the Member or Associate from whom the subscription is due, a letter, Form D, unless such Member or Associate reside out of the United Kingdom, in which case the Form D shall not be sent unless the subscription continues unpaid for twelve months.

5. If any arrears be not paid within twelve months, the Council shall use their discretion in erasing the name of the defaulter from the list of Members or Associates.

6. Members shall be entitled to introduce two Visitors at the Ordinary Meetings of the Society; and to have sent to them a copy of all the Papers read before the Society, which may be printed in its Transactions or otherwise, and of all other official documents which the Council may cause to be printed for the Society; they will also be entitled to a copy of all such translations of foreign works or other books as are published under the auspices of the Society in furtherance of the Sixth Object (§ I.).

7. Associates may introduce two Visitors at the Ordinary Meetings, and shall be entitled to all the minor publications of the Society, and to a copy of its Transactions during the period of their being Associates, but not to the translations of foreign works or other books above referred to.\* It shall, however, be competent to the Council of the Society, when its funds will admit of it, to issue the other publications of the Society to Associates, being ministers of religion, either gratuitously or at as small a charge as the Council may deem proper.

8. When it shall be found necessary to send the letter, Form D, to any Member or Associate who may be in arrear, the printed papers and other publications of the Society shall cease to be sent to such Member or Associate till the arrears are paid; and, until then, he shall not be

---

\* These, as well as the Transactions issued in the years previous to their joining, may be purchased at such prices as the Council may determine.

allowed to attend any Meeting of the Society, nor have access to any public rooms which may be in its occupation.

9. The Library shall be under the management and direction of the Council, who are empowered to designate such works as shall not be allowed to circulate.

10. Members may borrow books from the Library, and have not more than three volumes in their possession at the same time; pamphlets and periodical publications are not to be kept above fourteen days, nor any other book above three weeks. Associates may see books in the Library during office hours.

11. Members who may borrow books from the Library shall be answerable for the full value of any work that is lost or injured.

12. Periodical publications shall remain on the table for a month, other books for a fortnight, after they are received.

13. When a book or pamphlet is wanted, and has been the stipulated time in the possession of any Member, the Secretary shall request its return, and a fine of threepence a day shall be incurred for every day it may be detained, which fine shall commence on the third day after the transmission of the notice in the case of town Members, and after the sixth day in the case of country Members; and until the return of such works, and the discharge of all fines incurred, no further issue of books shall be permitted to the Member applied to.

14. The books shall be ordered in for inspection at such times as the Council shall appoint, and a fine of half-a-crown shall be incurred for neglecting to send in books by the time required in the notice.

15. A book shall lie on the Library table in which Members may insert, for the consideration of the Council, the titles of such works as they desire to be purchased for the Institute.

#### § IV. *By-laws* (General and Ordinary Meetings).

1. A General Meeting of Members and Associates shall be held annually on 24th May (being Her late Majesty's birthday, and the Society's anniversary), or on the Monday following, or on such other day as the Council may determine as most convenient, to receive the Report

of the Council on the state of the Society, and to deliberate thereon ; to discuss and determine such matters as may be brought forward relative to the affairs of the Society ; and to elect Members of Council and Officers for the ensuing year.

2. The Council shall call a Special General Meeting of the Members and Associates, when it seems to them necessary, or when required to do so by requisition, signed by not less than ten Members and Associates specifying the question intended to be submitted to such Meeting. Two weeks' notice must be given of any such Special General Meeting ; and only the subjects of which notice has been given shall be discussed thereat. No alteration in, or addition to, the existing rules shall be made except at such Special General Meeting.

3. The Ordinary Meetings of the Society shall usually be held on the first and third Monday afternoons or evenings in each month, from January to June inclusive and in December : or on such other afternoons or evenings as the Council may determine to be convenient : and a printed card of the Meetings for each Session shall be forwarded to each Member and Associate.

4. At the Ordinary Meetings the order of proceeding shall be as follows : The President, or one of the Vice-Presidents, or a Member of the Council or someone specially invited by the Council shall take the chair at the time fixed for the commencement of the Meeting ; the minutes of the last Ordinary Meeting shall be read by the Secretary, and, if found correct, shall be signed by the Chairman ; the names of new Members and Associates shall be read ; the presents made to the Society since their last Meeting shall be announced ; and any other communications which the Council think desirable shall be made to the Meeting. After which, the Paper or Papers intended for discussion shall be announced and read, and the persons present shall be invited by the Chairman to make any observations thereon which they may wish to offer.

The claims of Members and Associates to take part in a discussion are prior to those of Visitors. The latter, when desiring to speak upon any Paper, must first send their cards to the Chairman and ask permission, (unless they have been specially invited by the Council to attend, and join in considering the subject before the Meeting, or are called upon by the Chairman).

5. The Papers read before the Society, and the discussions thereon fully reported, shall be printed by order of the Council ; or, if not, the Council shall, if they see fit, state the grounds upon which this Rule has been departed from, in the printed Journal or Transactions of the Society.

6. The Council may at their discretion authorize Papers of a general kind to be read at any of the Ordinary Meetings, either as introductory lectures upon subjects proper to be afterwards discussed, or as the results of discussions which have taken place, in furtherance of the Fifth Object (§ I).

7. The Council may, at its discretion, request any Lecturer or Author of a paper to be read at any Meeting, previously to submit an outline of the proposed method of treating his subject.

8. At the Ordinary Meetings no question relating to the Rules or General Management of the affairs of the Society shall be introduced, discussed or determined.

#### *§ V. By-laws (Council Meetings).*

1. The Council shall meet at least once every month from October to June inclusive, or at any other time and on such days as they may deem expedient. The President, or any three Members of the Council, may at any time call a Special Meeting, to which the whole Council shall be summoned.

2. At Council Meetings three shall be a quorum ; the decision of the majority shall be considered as the decision of the Meeting, and the Chairman shall have a casting vote.

3. Minutes of the Proceedings shall be taken by the Secretary, or, in case of his absence, by some Member present, whom the Chairman may appoint ; which Minutes shall afterwards be entered in a minute-book kept for that purpose, and read at the next Meeting of the Council, when, if found correct, they shall be signed by the Chairman.

#### *§ VI. By-laws (Papers).*

1. Papers presented to be read before the Society shall, when read, be considered as the property of the Society, unless there shall have been any previous engagement with its author to the contrary ; and the Council may cause the same to be published in any way and at any time they may think proper after having been read. If a Paper be not read, it shall be returned to the author ; and, if a Paper be not published

within a reasonable time after having been read, the author shall be entitled himself to publish it, and he may borrow it for that purpose.

2. When a Paper is sent to the Society for the purpose of being read, it shall be laid before the Council, who may refer it to two of that body, or of the other Members or Associates of the Society whom they may select, for their opinions as to the character of the Paper and its fitness or otherwise for being read before the Society, which they shall state as briefly as may be, in writing, along with the grounds of their respective opinions. Should one of such opinions be adverse to the Paper and against its being read before the Society, then it shall be referred to some other referee, who is unaware of the opinion already pronounced upon the Paper, in order that he may state his opinion upon it in like manner. Should this opinion be adverse to the Paper, the Council shall then consult and decide whether the Paper shall be rejected or read ; and, if rejected, the Paper shall be returned to the author with an intimation of the purport of the adverse opinions which have been given with respect to it ; but the names of the referees are not to be communicated to him, unless with their consent or by order of the Council. All such references and communications are to be regarded as confidential, except in so far as the Council may please to direct otherwise.

3. The Council may authorize Papers to be read without such previous reference for an opinion thereon ; and when a paper has been referred, and the opinion is in favour of its being read in whole or in part, the Council shall then cause it to be placed in the List of Papers to be so read accordingly, and the author shall receive due notice of the day fixed for its reading.

4. The authors of Papers read before the Society shall, if they desire it, be presented with twenty-five separate copies of their Paper, with the discussion thereon, or with such other number as may be determined upon by the Council.

#### *§ VII. By-laws (General).*

1. The government of the Society, and the management of its concerns are entrusted to the Council, subject to no other restrictions than are herein imposed, and to no other interference than may arise from the acts of Members and Associates in General Meeting assembled.

2. With respect to the duties of the President, Vice-Presidents and other Officers and Members of Council, and any other matters not herein specially provided for, the Council may make any regulations and

arrangements as they deem proper, and as shall appear to them most conducive to the good government and management of the Society, and the promotion of its objects. And the Council may hire apartments, and appoint persons, whether Members of the Council, or Members or Associates of the Institute, or not, to be salaried officers, clerks, or servants, for carrying on the necessary business of the Society ; and may allow them respectively such salaries, gratuities, and privileges, as to them, the Council, may seem proper ; and they may suspend any such officer, clerk or servant from his office and duties, whenever there shall seem to them occasion ; provided always, that every such appointment or suspension shall be reported by the Council to the next ensuing General Meeting of the Members and Associates to be then confirmed or otherwise as such Meeting may think fit.

## FORM A.

FORM OF APPLICATION for the Admission of Vice-Patrons, Members, or Associates of the  
VICTORIA INSTITUTE.

[Date] \_\_\_\_\_ 19

I hereby desire to be enrolled a\*

INSTITUTE, OR PHILOSOPHICAL SOCIETY OF GREAT BRITAIN.

* Here insert Vice-Patron, <i>or</i> Member,	Candidate's ordinary Signature, and full name, if necessary.	Title, Profession, University degree, &c., <i>or</i> or other distinction.	Address
Life Member, <i>or</i> Associate, <i>or</i> Life Associate.			
	If an Author, the name of the Candidate's works may be here stated.		

When filled this form is to be sent to the

Honorary Secretary of the VICTORIA INSTITUTE,  
1, Central Buildings, Westminster, S.W.

## FORM B.

SIR,

19 .

I have the pleasure to inform you, with reference to your application dated the \_\_\_\_\_, that you have duly been elected a \_\_\_\_\_ of the VICTORIA INSTITUTE, OR PHILOSOPHICAL SOCIETY OF GREAT BRITAIN.

I have the honour to be, Sir,  
Your faithful Servant,

*Sec.*

## FORM C.

(Bankers) Messrs.

\* Please pay Messrs. BARCLAY & Co., 1, Pall Mall East, S.W., my Annual Contribution of Two GUINEAS to the VICTORIA INSTITUTE, due on the 1st of January, 19\_\_\_\_\_, and the same amount on that day in every succeeding year, until further notice.

I am,  
Your obedient Servant,

19 .

If this Form be used, please add your Signature, Banker's Name, and the Date, and return it to the Office, 1, Central Buildings, Westminster, S.W. Receipt-stamp required.

\* The above is the form for Members. The form for Associates is the same except that the Subscription stands as "ONE GUINEA."

## FORM D.

SIR,

19 .

Permit me to remind you that your subscription to the Institute for this year (\_\_\_\_\_) has not yet been paid. I shall be grateful for an early remittance.

Yours faithfully,

*Sec.*

THE  
VICTORIA INSTITUTE  
TRANSACTIONS.

---

INDEX to VOLs. I. to XLIII.

---

*October, 1914.*

Back Volumes, except Vols. I, III, and V, can be obtained  
from the Secretary at 10s. 6d. each.

1, CENTRAL BUILDINGS,  
WESTMINSTER, S.W.

## INDEX TO AUTHORS.

---

Arthur, Rev. W. Time and space. Vol. 22.

Ashwin, Rev. C. Godfrey, M.A. Modern science and natural religion. Vol. 23.

Avery, Prof. J. On the religion of the Aboriginal tribes of India. Vol. 19.

Ball, Sir Robt., LL.D., F.R.S. Origin of new stars. Annual Address. Vol. 33.

Bardsley, Archdeacon. The origin of man. Vol. 17.

Bateman, Mr. J. F., F.R.S., F.R.S.E. Darwinism tested by recent researches in language. Vol. 7.

— Meteorology, rainfall. Vol. 15.

Baylee, Rev. J., D.D. Nature of human language, etc. Vol. 3.

Baylis, Rev. F., M.A. Science in relation to Missions. Vol. 43.

Beale, Prof. Lionel S., M.B., F.R.C.P.Lond., F.R.S. New materialism unscientific. Vol. 16.

— The living and the non-living. Vol. 16.

— The new materialism. Vol. 16.

— Structure and structureless. Vol. 20.

— The nature of life. Vol. 32.

— Vitality. Vol. 33.

— Water essential to all life. Vol. 34.

— The living God of living nature from the science side. Vol. 35.

— Unseen life of our world and of living growth. Vol. 35.

— Obituary notice, June 1906. Vol. 38.

Bernard, Prof., D.D. The philosophic basis of the argument from design. Vol. 26.

Bey, Dr. Grant. The climate of Egypt in Geologic, Prehistoric, and Ancient Historic Times. Vol. 32.

Birks, Rev. Prof., M.A. Indestructibility of force. Vol. 9.

— On the uncertainties of modern physical science. Vol. 11.

— On the Bible and modern astronomy. Vol. 11.

— Modern geogenies and the antiquity of man. Vol. 13.

Blackett, Rev. W. R., M.A. Some thoughts on the evolution of religions. Vol. 19.

Blencowe, Rev. G. Modern science of religion. Vol. 15 (Max Müller's Chips, etc.).

— Human responsibility. Vol. 19.

Bompas, Mr. G. Cox, F.G.S. Evolution and design. Vol. 29.

Boord, Miss Hilda. On the hot lakes district, New Zealand. Vol. 36.

Boscawen, Mr. W. St. C., F.R.Hist.Soc. Cuneiform inscriptions as illustrating times of Jewish captivity. Vol. 18.

— Historical evidences of the migration of Abram. Vol. 20.

Boultbee, Rev. T. P., LL.D. Moral and social anarchy of modern unbelief. Vol. 8. Annual address.

- Bree, Dr. C. R., M.D. Darwinism and its effects on religious thought. Vol. 7.
- Brinton, Dr. D. G. Human footprints in Nicaragua. Vol. 22.
- Brodie, Rev. J., M.A. Lessons taught us by geology in relation to God. Vol. 1.
- Brooke, Mr. Ch., M.A., F.R.S. Simplification of first principles in physical science. Vol. 3.
- Force and energy. Vol. 7.
- Brown, Mr. R., F.S.A. The system of Zoroaster—archaic monotheism. Vol. 13.
- Religion and mythology of the Aryans of N. Europe. Vol. 14.
- Language and the theories of its origin. Vol. 15.
- Bruce, Sir Charles, G.C.M.G., Annual address—The true temper of Empire. Vol. 43.
- Budge, Mr. E. A., M.A., M.R.A.S. Nebuchadnezzar, King of Babylon—recently discovered inscriptions of this King. Vol. 18.
- Bullen, Rev. R. Ashington, B.A., F.G.S. Eolithic implements. Vol. 33.
- Burnett, Mr. C. Mountford, V.P. Difference in scope between science and scripture. Vol. 1.
- Caldecott, Prof. A., King's College, London. Heredity and eugenics. Vol. 42.
- Callard, Mr. T. K., F.G.S. Does the contemporaneity of man with extinct mammalia prove the antiquity of man. Vol. 13.
- Breaks in the continuity of mammalian life at certain geological periods—fatal to Darwinism. Vol. 16.
- Carus-Wilson, Mr. C. A., M.A., M.I.C.E. Ezekiel's Vision of the Divine Glory. Vol. 41.
- Challis, Prof., M.A., F.R.S., F.R.A.S. On the principles of modern pantheistic and atheistic philosophy, etc. Vol. 8.
- On the magnitudes in creation, etc. Vol. 9.
- On the relation of the Bible account of the deluge to physical science. Vol. 10.
- On the metaphysics of scripture. Vol. 11.
- On the indestructibility of matter. Vol. 12.
- Chaplin, Dr. T. Some diseases mentioned in the Bible. Vol. 34.
- Charlesworth, Mr. E., F.G.S. On the structure of the gorilla. Vol. 20.
- On flint bodies in the chalk known as paramoudra. Vol. 26.
- Christian, Mr. F. W., B.A. On the evidence of Malay, Japanese, Arabian, and Persian admixture in the Inca or Keshua language of Peru, amongst the Aymara language of the peasant class. Vol. 40.
- Clarke, Rev. H. J., The fundamental assumptions of agnosticism. Vol. 20.
- Evolution. Vol. 21.
- The meaning and history of the logos of philosophy. Vol. 23.
- The science of rectitude as distinct from expedience. Vol. 24.
- Deontology. Vol. 25.
- Claughton, Bp. Piers C., D.D. On Buddhism. Vol. 8.
- Cleland, Prof. J., F.R.S. Classification of the vertebrata. Vol. 30.
- Coles, Rev. J. J. B., M.A., F.R.G.S. Theosophy. Vol. 43.
- Collingwood, Dr. C., M.A., M.D. Instinct and reason. Vol. 24.
- Collins, Rev. R., M.A. On Buddhism. Vol. 18.
- On some characteristics of primitive religions. Vol. 19.
- On Krishna. Vol. 21.
- Buddhism and the light of Asia. Vol. 28.
- Conder, Col. C. R., R.E., D.C.L. On the Canaanites. Vol. 24.
- On the comparison of Asiatic languages. Vol. 27.
- Cooper, Mr. W. R., F.R.A.S., M.R.A.S. Serpent myths in ancient Egypt. Vol. 6.
- The myth of Ra. Vol. 11.
- The Horus myth. Vol. 12.

Cotterill, Bp., D.D. On the relation of scientific thought to religion. Vol. 12.  
— On the relation of science and religion—principles of unity, order, and causation. Vol. 15.  
Courtney, Dr. W. L., LL.D. On the reality of the self. Vol. 25.  
— The alleged scepticism of Kant. Vol. 27.  
Crommelin, Dr. A. C. D., D.Sc., F.R.A.S. The return of Halley's comet. Vol. 42.  
Cunningham, Rev. W., D.D., Deacon of Ely. Christianity and Socialism. Vol. 41.

Dabney, Prof. R. L., D.D., LL.D. Inductive logic. Vol. 19.  
— On final cause. Vol. 20.  
Davison, Rev. M. The Noachian deluge. Vol. 4.  
Dawson, Sir J. Wm., C.M.G., F.R.S., etc. Introduction of genera and species in geological time. Vol. 7.  
— Biblical interpretation in connection with science. Vol. 9.  
— Flint agricultural implements of America. Vol. 11.  
— Pliocene man in America. Vol. 15.  
— On prehistoric man in Egypt and the Lebanon. Vol. 18.  
— Chronology of animal life on the earth prior to advent of man. Vol. 20.  
— Useful and ornamental stones of ancient Egypt. Vol. 26.  
— Causes of climatal changes. Vol. 26.  
— Specimens illustrating physical characters, etc., of Guanches of Canary Islands. Vol. 29.  
De la Mare, Rev. A., M.A. On theology as a science. Vol. 3.  
Duns, Prof. J., D.D., F.R.S.E. On the theory of natural selection and the theory of design. Vol. 20. Ditto Vol. 22.  
— Stone folk-lore. Vol. 29.  
— Marks of mind in nature. Vol. 32.

Eells, Dr. M., Rev. The worship and traditions of the aborigines of America. Vol. 19.  
— The worship and traditions of the aborigines of the islands of the Pacific Ocean. Vol. 32.  
Elwin, Rev. Arthur. Ancestral worship. Vol. 36.  
— Confucianism. Vol. 37.  
English, Rev. W. W., M.A. On miracles, their compatibility with philosophical principles. Vol. 1.  
— Ethical philosophy. Vol. 3.  
— Biblical pneumatology and psychology. Vol. 6.

Fayrer, Sir Joseph, M.D., K.C.S.I., F.R.S. On rainfall and climate of India. Vol. 15.  
— On serpent worship and the venomous snakes of India. Vol. 26.  
Fisher, Rev. J., D.D. On the organ of the mind. Vol. 14.  
Fleay, Mr. Fredk. Gard., M.A. The synchronous chronology of the Kings of Israel and Judah. Vol. 36.  
Forsyth, Mr. W., Q.C., LL.D., V.P. On the rules of evidence as applicable to the credibility of history. Vol. 8.  
Fox, Mr. C. Dillworth. On the glaciers in the south island of New Zealand. Vol. 40.  
Fradenburgh, Dr. J. N., Ph.D., D.D., LL.D. The literature of Egypt in the time of Moses. Vol. 31.  
Fraser, Dr. J., LL.D. Aborigines of Australia, their ethnic position and relations. Vol. 22.

- Frazer, Rev. W. H., D.D. Experiences in South Africa during the war. Vol. 35.
- Frost, Dr. Edw. P., D.L. The influence of physiological discovery on thought. Vol. 37.
- Gabbett, Rev. Edw., M.A. On respective provinces of the observer and reasoner in scientific investigation. Vol. 4.
- Galton, Rev. Arthur, M.A. Present position of Catholics in France. Vol. 41.
- Garratt, Canon M.A. Samaritan text of the Pentateuch. Vol. 36.
- Geikie, Prof. James, D.C.L., F.R.S. The glacial period and the earth movement hypothesis. Vol. 26.
- Gerard, Rev. John. Species and their origin. Vol. 42.
- Gill, Sir David, LL.D., F.R.S. The sidereal universe. Vol. 43.
- Girdlestone, Rev. Canon, M.A. Scientific research and biblical study. Vol. 29.
- The resurrection of Jesus Christ April 17, 1905. Vol. 37.
- The scriptural idea of miracles. Vol. 39.
- Indications of a scheme in the universe. Vol. 43.
- Gladstone, Dr., F.R.S. Mutual helpfulness of theology and natural science. Vol. 1.
- Gordon, Surg.-Gen. Sir Ch. A., M.D., K.C.B., Q.H.P. On climate in relation to organic nature. Vol. 17.
- On certain theories of life. Vol. 17.
- Ethnology and ancient chronology of China. Vol. 23.
- Philosophy and medical knowledge of ancient India. Vol. 25.
- Chinese ethics and philosophy. Vol. 28.
- China's place in ancient history. Vol. 29.
- Gosse, P. H., Esq. On the high numbers in the Pentateuch. Vol. 5.
- Gosse, E. W., On the ethical condition of the early Scandinavian peoples. Vol. 9.
- Graham, Rev. C. Some scriptural aspects of man's tripartite nature. Vol. 6.
- Grimaldi, Rev. A. B., M.A. The zodiacal arrangement of the stars. Its historical and biblical connections. Vol. 38.
- Grimthorpe, Rt. Hon. Lord. Did the world evolve itself? Vol. 17.
- On the beauty of nature. Vol. 21.
- On human responsibility. Vol. 25.
- Griswold, Rev. H. D., M.A., Ph.D., Lahore. The Arya Samaj. Vol. 35.
- The Messiah of Qādiān. 15 May, 1905. Vol. 37.
- Ground, Rev. W. D. On Herbert Spencer's theory of the will. Vol. 16.
- Examination of the philosophy of Herbert Spencer. Vol. 16.
- Guppy, Mr. H. B., M.B., F.R.S.E. Keeling Atoll. Vol. 23.
- Coral Islands and savage myths. Vol. 23.
- Dispersal of the plants . . . of the Keeling Islands. Vol. 24.
- Polynesians and their plant names. Vol. 29.
- Plant distribution from an old standpoint. Vol. 39.
- Gwatkin, The Rev. Prof. H. M., Dixie Prof. Eccles. Hist. Camb. Arianism in its bearing on modern questions. Vol. 42.
- Hammond, Canon, LL.B. Samaritan passover of 1861. Vol. 36.
- Hassell, Mr. J. Theory of evolution taught by Haeckel, etc. Vol. 16.
- Was primeval man a savage? Vol. 19.
- On Agnosticism. Vol. 20.
- Hendley, Col. T. Holbein, C.I.E. Rajputs and the history of Rajputana. 16 Jan., 1905. Vol. 37.
- Orissa, a little known province of the Indian Empire. Vol. 39.
- Resemblances between Indian and Jewish ideas and customs. Vol. 40.

- Henslow, Rev. G., M.A., F.L.S. Certain analogies between methods of the Deity in nature and revelation. Vol. 4.  
— Phyllotaxis. Arrangement of leaves by mathematical law. Vol. 6.  
— Natural theology, with respect to modern philosophy. Vol. 7.  
Hill, Dr. Alex., V.C. of Camb. Univ. From reflex action to volition. Vol. 26.  
Hitchman, Dr. W., M.D. The true anthropology. Vol. 5.  
Holland, Rev. F. W., M.A. The topography of the Sinaitic Peninsula. Vol. 14.  
Hopkins, Evan, Esq., C.E., F.G.S. General character of geological formations. Vol. 1.  
— Terrestrial changes and probable ages of the continents, founded on astronomical and geological facts. Vol. 2.  
Howard, D., F.C.S. The structure of geological formations an evidence of design. Vol. 11.  
Howard, Mr. J. E., F.R.S. On scientific facts and Christian evidence. Vol. 7.  
— On contrast between crystallization and life. Vol. 8.  
— On the early dawn of civilization from the Bible point of view. Vol. 9.  
— An examination of the Belfast address from a scientific point of view. Vol. 10.  
— On Egypt and the Bible. Vol. 10.  
— The influence of true and false philosophy. Vol. 12.  
— Creation and providence. Vol. 12.  
— The Torquay caves and their teaching. Vol. 13.  
— The Druids and their religion. Vol. 14.  
— The early destinies of man. Vol. 15.  
— Scientific facts and the caves of South Devon. Vol. 15.  
— The supernatural in nature. Vol. 16.  
— On certain definitions of matter. Vol. 17.  
Howorth, Sir Henry H., D.C.L., F.R.S. Ice or water. Vol. 38.  
Hudleston, Mr. Wilfred H., F.R.S. Origin of marine fauna of Tanganyika. Vol. 36.  
— Biographical notice. Vol. 41.  
Hughes, Prof. T. McKenny, F.R.S. Evidence already obtained as to the antiquity of man. Vol. 13.  
— Evidence of later movements of elevation and depression in British Isles. Vol. 14.  
— On caves. Vol. 21.  
— Cuts on bone as evidence of man's existence in remote ages. Vol. 23.  
— Nationality. Vol. 32.  
Hull, Prof. Edw., M.A., LL.D., F.R.S. Petra. Vol. 21.  
— Expedition to Arabia, Petraea and Palestine. Vol. 21.  
— God in nature. Vol. 24.  
— Sketch of the geological history of Egypt and the Nile Valley. Vol. 24.  
— How the waters of the ocean became salt. Vol. 27.  
— Holy scripture illustrated by recent discoveries in the East. Vol. 28.  
— Supposed discovery of remains of animal between man and ape. Vol. 28.  
— British Isles. Vol. 30.  
— Proposed scheme for embanking waters of Nile. Vol. 30.  
— Where is Sinai? See Vol. 31.  
— Physical conditions of the Mediterranean basin. Vol. 31.  
— Sub-oceanic terraces and river valleys on west coast of Europe. Vol. 31.  
— Another cause of the glacial epoch. Vol. 31.  
— Our coal resources at the end of the nineteenth century. Annual address. Vol. 32.  
— Sub-oceanic river valleys of West African continent, etc. Vol. 32.  
— Physical history of Norwegian Fjords. Vol. 34.  
— Cheesewring, Cornwall, and its teaching. Vol. 35.  
— Age of last uprise in the British Isles. Vol. 36.

- Hull, Prof. Edw., Thickness of the Lucerne glacier of the Post-Pliocene period. Vol. 36.
- Dr. Nansen's bathymetrical researches in the Arctic Ocean as compared with those on the Atlantic coast. Vol. 37.
- On the spread of existing animals through Europe and to the islands of the Atlantic; based on Dr. Scharf's recent work, "European animals." Vol. 40.
- Geneva and Chamounix half a century ago and to-day. Vol. 41.
- Abnormal conditions of water. Evidence of Design. Vol. 42.
- Hull, Miss E. H. The early Celtic churches of Britain and Ireland. Vol. 38.
- Irons, Preb., D.D. Analysis of human responsibility. Vol. 4 (twice).
- The Darwinian theory. Vol. 6.
- Prof. Tyndall's Fragments of science for unscientific people. Vol. 7.
- Mr. Mill's essay on theism. Vol. 9.
- Examination of the unseen universe. Vol. 11.
- Irving, Rev. A., D.Sc. Evolutionary law in the creation story. Vol. 38.
- Light, luminaries and life. Vol. 42.
- Jack, Dr. R. Logan, LL.D. Artesian water in Queensland. Vol. 34.
- James, W. P., F.L.S. The argument from design in nature. Vol. 17.
- Pessimism. Vol. 18.
- Relation of fossil botany to theories of evolution. Vol. 19.
- On accounts of the creation. Vol. 20.
- Jervis, Chev. W. P., F.G.S. Thalassographical and thalassological notes on the North Sea. Vol. 32.
- Prehistoric remains near Tenda, Italy. Vol. 36.
- The minerals and metals mentioned in the Old Testament. Vol. 37.
- Kelvin, Lord, G.C.V.O. Extracts from his Presidential address before British Association. Vol. 31. On design.
- The age of the earth as an abode of life. Annual address. Vol. 39.
- Kidd, Dr. Walter A., F.Z.S. Plan and purpose in nature. Vol. 31.
- Creation or evolution. Vol. 32.
- Methods of protection among animals. Vol. 33.
- Adaptation and selection in nature. Vol. 34.
- Two paths, one goal. Vol. 36.
- Kirby, Mr. W. F., F.G.S. The butterflies and moths of Africa. Vol. 23.
- Kirk, Rev. Prof. John. Past and present relations of geological science to sacred scriptures. Vol. 1.
- Relations of metaphysical and physical science to Christian doctrine of Prayer. Vol. 2.
- Doctrine of creation according to Darwin, Agassiz, and Moses. Vol. 4.
- Spontaneous generation; or, problem of life. Vol. 5.
- Origin of the moral sense. Vol. 7.
- Klein, Mr. Sydney T., F.L.S., F.R.A.S. Conception of the great reality. Vol. 36.
- Laming, Mr. R. Immediate derivation of science from the great first cause. Vol. 3.
- Lansdell, Rev. H., D.D., M.R.A.S., F.R.G.S. Tithe-giving among Pagan nations. Vol. 31.
- Legge, Prof. J., M.A., Oxford. Chinese chronology. Vol. 25.
- Leitner, Dr., Ph.D., LL.D., D.O.L. On the sciences of language and ethnography. Vol. 23.

- Lias, Rev. Chancellor, M.A. Christianity as a moral power. Vol. 11.  
— Mr. Mat. Arnold and modern culture. Vol. 12.  
— Is it possible to know God? Vol. 17.  
— Miracles, science, and prayer. Vol. 29.  
— Modifications in the idea of God. Vol. 34.  
— Modernism. Its origin and tendencies. Vol. 40.  
— On the decay of Ultramontanism from an historical point of view. Vol. 40.
- Lobley, Prof. J. Logan, F.G.S., F.R.G.S. Sub-oceanic depression—"La fosse de Cap Breton." Vol. 33.  
— Preparations of the earth for man's abode. Vol. 34.  
— Volcanic action and the West Indian eruptions of 1902. Vol. 35.  
— Biological change in geological time. Vol. 38.  
— History of the spread of the European fauna. Vol. 39.  
— The American fauna and its origin. Vol. 40.
- McCann, Rev. J., D.D. A demonstration of the existence of God. Vol. 5.  
— Force and its manifestations. Vol. 7.  
— The nature and character of evidence for scientific purposes. Vol. 5.
- McCaull, Rev. A. I., M.A. On biblical interpretation in connexion with science. Vol. 9.
- McCausland, Dr., Q.C., LL.D. On some uses of sacred primeval history. Vol. 3.
- MacCulloch, Rev. Canon. The descent into Hades; a study in comparative theology. Vol. 43.
- Macdonald, Dr. John D., I.H.R.N., F.R.S. Man's place in creation. Vol. 4.  
— The human colour sense and its accordance with that of sound as bearing on the analogy of sound and colour. Vol. 32.
- Maedougall, Rev. J. The present day materialism. Vol. 10.
- Mackinlay, Lt.-Col. G., late R.A. Biblical astronomy. Vol. 37.  
— The morning star in the gospels. Vol. 38.  
— The date of the Nativity was 8 B.C. Vol. 41.
- Mackintosh, Mr. D., F.G.S. On the recency of the close of the glacial epoch. Vol. 19.
- Maclarens, Mr. J. M., F.G.S. Physical history of the New Zealand Fjords. Vol. 34.
- Macloskie, Prof. G., D.Sc., LL.D. The mechanical conception of Nature. Vol. 28.  
— Common errors as to the relation of science and faith. Vol. 32.
- Main, Rev. R., F.R.S., V.P.R.A.S. Modern philosophic scepticism examined. Vol. 10.
- Margoliouth, Prof. D.S., D.Litt., Prof. of Arabic, Oxford. The future of Islam. Vol. 35.
- Marston, Rev. H. J. R., M.A. Plato's theory of public education in relation to the Christian doctrine of human nature. Vol. 42.
- Maspero, Prof. The list of Thothmes III. Vol. 20.  
— Excavations round the Sphinx. Vol. 20.  
— The list of Thothmes III. Vol. 22.  
— The list of Shishak. Vol. 27.
- Masterman, Dr. E. W. G. Water supply of Jerusalem. Vol. 35.  
— Recent discoveries in Palestine in relation to the Bible. Vol. 39.
- Mathews, Mr. R. H. Pictorial art among the Australian Aborigines. Vol. 33.
- Maunder, Mr. E. Walter, F.R.A.S., Greenwich Observatory. Annual Address, The Bible and Astronomy. Vol. 40.
- Max Müller, Prof. Note on Polynesians. Vol. 29.  
— Note on Tithe givings. Vol. 31.

- Mello, Rev. J., M.A., F.G.S. The prehistoric factory of flints at Spennes.  
 Vol. 18.
- The dawn of Metallurgy. Vol. 23.
- On primitive man. Vol. 30.
- Mitchell, Rev. R. On the identity of reason in Science and Religion. Vol. 8.
- Mitchell, Rev. Walter, M.A. Falling stars and meteorites. Vol. 1.
- Inaugural Address, Vol. 1.
- Geometrical Iso-morphism of crystals . . . cubical system. Vol. 2.
- The unphilosophical character of some objections to divine inspiration of scripture. Vol. 3.
- Monier-Williams, Sir M., K.C.I.E., D.C.L. Egyptian discoveries in 1888.  
 Vol. 21.
- Sacred books of the East. Vol. 21.
- Contrasts between doctrines of Buddhism and Christianity. Vol. 23.
- Annual Address. Vol. 23.
- The Monism, Pantheism and Dualism of Brahmanical and Zoroastrian philosophers. Vol. 25.
- Morris, Prof., of Baltimore. The final cause as principle of cognition and principle in nature. Vol. 9.
- The theory of unconscious intelligence as opposed to Theism. Vol. 11.
- Morshead, Mr. E. J. On comparative psychology. Vol. 3.
- On comparative psychology. Vol. 5.
- On comparative psychology. Vol. 11.
- Moule, Rev. H. More than one universal deluge recorded in scripture.  
 Vol. 4.
- Israel in Egypt. Vol. 5.
- Murphy, Mr. J. J. Physical theory of moral freedom. Vol. 22.
- The factors of evolution in language. Vol. 23.
- Murray, Rt. Hon. Sir C., K.C.B. On flint arrow heads of delicate structure.  
 Vol. 22.
- Naville, Dr. E., Ph.D. Historical results of excavations at Bubastis. Vol. 23.
- The route of the Exodus. Vol. 26.
- Neil, Rev. J., M.A. Land tenure in ancient times in Palestine. Vol. 24.
- Nicholson, Dr., Prof. H. A., M.D., F.R.S.E. On the bearing of certain palæontological facts on Darwinian theory of the origin of species and evolution in general. Vol. 9.
- On the place of science in education. Vol. 10.
- Of the nature of life. Vol. 14.
- Odling, Mr. C. W., C.I.E., M.Inst.C.E. Observations on irrigation works in India. Vol. 36.
- O'Neil, the Lord. The action of will in formation of universe. Vol. 15.
- The credibility of the supernatural. Vol. 16.
- On misrepresentations of Christianity. Vol. 18.
- Orchard, Prof. H. Langhorne, M.A., B.Sc. Philosophy and evolution.  
 Vol. 40.
- Attitude of science towards miracles. Vol. 42. Gunning Prize, 1909.
- Parker, Prof. H. W., M.D. The principles of rank among animals. Vol. 27.
- Pattison, Mr. S. R., F.G.S. Geological proof of divine action. Vol. 5.
- On the chronology of recent geology. Vol. 10.
- Nature's limits : an argument for Theism. Vol. 12.
- Evolution of the pearly nautilus. Vol. 18.
- Pedigree of the coral reefs of England. Vol. 21.

- Peet, Rev. S. D. Traditions of the Aborigines of North America. Vol. 21.  
 Penny, Mr. E. B. On miracles. Vol. 1.  
 Petrie, Capt. F. W. H., F.G.S. On the Moabite Stone. Vol. 6.  
 —— Antiquity of man. Note. Vol. 20.  
 —— The late Prof. Asa Grey. Vol. 22.  
 —— Importance of Babylonian excavations. Vol. 22.  
 —— Science and religion. Vol. 23.  
 —— Man's place in Nature. Vol. 24.  
 Petrie, Prof. W. M. Flinders, D.C.L. Annual Address: Discoveries in Egypt. Vol. 35.  
 —— Researches in Sinai. Vol. 39.  
 Phene, Mr. J. S., LL.D., F.S.A. On prehistoric traditions and customs in connection with sun and serpent worship. Vol. 8.  
 Pinches, Dr. Theophilus G., LL.D., M.R.A.S. Some recent discoveries in the realm of Assyriology. Vol. 26.  
 —— Religious ideas of the Babylonians. Vol. 28.  
 —— Certain inscriptions, etc., Babylonia and Elam. Vol. 29.  
 —— Report on Congress on Religions, Paris. Vol. 33.  
 —— Babylonian story of creation, Bel's fight with the dragon. Vol. 35.  
 —— Report on Congress of Orientalists at Hamburg. Vol. 35.  
 —— Hammurabi's code of laws. Vol. 35.  
 —— Discoveries in Babylonia, etc. Vol. 41.  
 —— Assur and Nineveh. 7 March, 1910, Vol. 42.  
 —— Prof. Hilprecht's newly discovered deluge fragment. Vol. 43.  
 Pope, Rev. G. U., D.D. History of the Mānikka Vācarga "Foe of Buddhists." Vol. 30.  
 Porter, Prof. Noah, President of Yale University. On science and man. Vol. 13.  
 —— On physiological metaphysics. Vol. 14.  
 Porter, Rev. J. Leslie, D.C.L. Physical geography of the East. Vol. 12.  
 —— Science not opposed to revelation. Vol. 18.  
 —— Egypt, physical, historical, literary, and social. Vol. 20.  
 —— Jewish, Phenician and early Greek art. Vol. 21.  
 Post, Prof. G. E., D.D., M.D. Meteorology of Syria and Palestine. Vol. 20.  
 —— Botanical geography of Syria and Palestine. Vol. 22.  
 Potter, Ven. Archdeacon Beresford. Determinism. Vol. 42.  
 Powell, Rev. T., F.L.S. A Samoan tradition of the creation. Vol. 20.  
 Prestwich, Sir J., K.C.B., D.C.L., F.R.S. A possible cause for the origin of the tradition of the Flood. Vol. 27.  
 Putnam, Prof. Some Guanche skulls. Vol. 29.
- Ramsay, Sir William, F.R.S., D.C.L. Exploration of Asia Minor, as bearing on the historical trustworthiness of the New Testament. Vol. 39.  
 —— A country town of Lycaonia. Vol. 41.  
 Rassam, Mr. Hormuzd. Late Assyrian and Babylonian research. Vol. 14.  
 —— Babylonian cities. Vol. 17.  
 —— The Garden of Eden: a criticism. Vol. 25.  
 —— Biblical lands, races, customs, etc. Vol. 30.  
 Reddie, Mr. James. On various theories of Man's past and present condition. Vol. 11.  
 —— Geological chronology, in reply to Huxley. Vol. 2.  
 —— On Utilitarianism. Vol. 2.  
 —— On credibility of Darwinism. Vol. 2.  
 —— Why man must believe in God. Vol. 5.  
 —— Civilization: moral and material. Vol. 6.  
 Richmond, Judge C. W. Materialism. Vol. 16.

- Robbins, Rev. J., D.D. Fatalism. Vol. 7.
- Robinson, Rev. Andrew Craig, M.A. The bearing of recent Oriental discoveries on Old Testament history. Second Gunning Prize, 1905. Vol. 38.
- Roget, Prof. F. F. On Ernest Naville. Vol. 43.
- Rouse, M. L., Esq., B.L. Procopius's African monument. Vol. 34.
- The Pedigree of the Nations. Vol. 38.
- The Pedigree of the Nations. Vol. 39.
- Row, Preb. C. A., M.A. On the relation of reason to philosophy, theology and revelation. Vol. 3.
- On some of the philosophical principles in Buckle's History of Civilization. Vol. 3.
- On the testimony of philosophy to Christianity as a moral and spiritual revelation. Vol. 5.
- Dr. Newman's Essay in aid of a Grammar of Assent. Vol. 6.
- Remarks on some of the current principles of historic criticism. Vol. 7.
- Principles of modern pantheistic and atheistic philosophy as expressed in the last work of Strauss, Mill, etc. Vol. 8.
- Rule, Rev. Dr. Monotheism. Vol. 12.
- Rutland, Mr. Joshua. The Maoris' place in history. Vol. 33.

- Saunders, Mr. Trelawney. Recent survey of West Palestine and its bearing on the Bible. Vol. 17.
- Saville, Rev. B. W., M.A. On evidence of Egyptian monuments to sojourn of Israel in Egypt. Vol. 6.
- On the harmony between chronology of Egypt and Bible. Vol. 9.
- On heathen cosmogonies compared with Hebrew. Vol. 10.
- Sayce, Rev. A. H., M.A., D.D., LL.D., Prof. of Assyriology, Oxford. Cuneiform inscriptions of Tel el Amarna. Vol. 24.
- Schofield, Dr. A. T., M.D. An inquiry into the formation of habit in man. Vol. 27.
- The natural and the artificial. Vol. 29.
- Some relations of mind and body. Vol. 30.
- The scope of mind. Vol. 32.
- Philosophy of education. Vol. 33.
- Springs of character. Vol. 34.
- Science and the unseen world. Vol. 41.
- Searle, Mr. G. F. C., M.A., F.R.S., Univ. Lect. in Expl. Physics, Camb. Modern conceptions of the universe. Vol. 42.
- Sharp, Rev. John, M.A. The last century's witness to the Bible. Vol. 43.
- Shaw, Rev. G. A., F.Z.S. Arab immigration in south-east Madagascar. Vol. 33.
- Sinclair, Ven. Arch., D.D. On the being of God. Vol. 33.
- Slater, Mr. J. W., F.C.S., F.E.S. The weak sides of natural selection. Vol. 26.
- The philosophy of Comte. Vol. 28.
- Life as compared with physical forces. Vol. 32.
- Smith, Dr. Gerard, M.R.C.S. Design as exemplified in the form of the human foot. Vol. 31.
- Smith, Judge G. H., Los Angeles, Cal. Jurisprudence, theory of. Vol. 43.
- Smith, Rev. I. Gregory, D.D. Psychology. Vol. 43.
- Smith, Bp. Saumarez, D.D. Practical optimism. Vol. 21.
- Southall, Dr., of U.S.A. Lapse of time since glacial epoch determined by date of polished stone age. Vol. 13.
- Pliocene man in America. Vol. 15.
- Spencer, Dr. J. W., M.A., Ph.D., F.G.S. On geological relationship of the volcanoes of the West Indies. Vol. 35.

- Statham, Mr. E. J., Assoc.M.Inst.C.E. Ancient script in Australia.  
 Vol. 33.
- Stefansson, Dr. Jon, Ph.D. Iceland, its history and inhabitants.  
 Vol. 34.  
 — Iceland, its history and inhabitants. Vol. 38.
- Stokes, Sir G. G., Prof. On the bearings of natural science, etc., on our religious ideas. Vol. 14.  
 — Absence of real opposition between science and revelation. Vol. 17.  
 — Annual Address. Vol. 20.  
 — The one origin of the books of Revelation and of Nature. Vol. 22.  
 — The luminiferous ether. Annual Meeting. Vol. 28.  
 — Perception of light. Annual Address, 1895. Vol. 29.  
 — Röntgen rays. Annual Address, 1896. Vol. 30.  
 — Perception of colour. Annual Address, 1897. Vol. 31.
- Taylor, the Rev. Isaac, M.A. On the Etruscan language. Vol. 10.  
 — The history of the alphabet. Vol. 12.
- Temple, Sir Richard, Bart., G.C.S.I. The unity of truth. Annual Address.  
 Vol. 32.
- Thompson, Dr. J. P., D.D., LL.D. Final cause: a critique of the failure of Paley and fallacy of Hume. Vol. 13.  
 — Implements of the stone age as demarcation between man and animals. Vol. 15.
- Thompson, Dr. Silvanus P., F.R.S. Reconstruction and restatement. Annual Address. Vol. 37.
- Thornton, Rev. R., D.D. On comparative philology. Vol. 1.  
 — On the logic of scepticism. Vol. 2.  
 — On the credulity of scepticism. Vol. 4.  
 — The numerical system of the Old Testament. Vol. 5.  
 — The varying tactics of scepticism. Vol. 9.  
 — The sorrows of scepticism. Vol. 10.
- Thornton, Rt. Rev. Bishop S., D.D. Problems of aboriginal art in Australia.  
 Vol. 30.
- Tisdall, Rev. W. St. Clair, D.D. Islam. Vol. 25.  
 — Mithraism, Christianity's greatest rival under the Roman Emperors. Vol. 43.
- Titcomb, Bp., D.D. Antiquity of civilisation. Vol. 3.  
 — Common origin of American races with those of Old World. Vol. 3.  
 — Origin of the negro. Vol. 5.  
 — Prehistoric monotheism, in relation to man as an aboriginal savage. Vol. 6.  
 — Ethnic testimonies of the Pentateuch. Vol. 6.  
 — On magnitude in creation and their bearings on Biblical interpretation. Vol. 9.
- Tomkins, Rev. H. G. On history in the time of Abraham. Vol. 12.  
 — The life of Joseph (external sources). Vol. 15.  
 — Biblical proper names from sources external to Bible. Vol. 16.  
 — Recent Egyptological research in its biblical relations. Vol. 18.
- Tristram, Rev. H. B., D.D., LL.D., F.R.S. Canaan, ancient and modern. Vol. 21.  
 — Obituary notice, p. 12. Vol. 38.
- Tuckwell, Rev. John, M.R.A.S. Modern theories *re* composition of Holy Scripture. Vol. 35.
- Tulloch, Maj.-Gen., C.B., C.M.G. The passage of the Red Sea by the Israelites. Vol. 28.
- Turner, Rev. F. Storrs, B.A. The right way in psychology. Vol. 37.  
 — Mencius. Vol. 39.

- Upham, Dr. Warren, M.A., D.Sc., F.G.S.A., Hon. Corres. Member. On the post glacial period. Vol. 25.  
 —— On the recession of Niagara Falls. Vol. 27.  
 —— Causes of the ice age. Vol. 29.  
 —— The divisions of the ice age. Vol. 33.  
 —— The nebular and planetesimal theories of the earth's origin. Vol. 37.  
 —— The San Francisco and Valparaiso earthquakes and their causes. Vol. 39.
- Urquhart, Rev. John. Gunning Prize Essay, 1905. The bearings of recent Oriental discoveries on Old Testament history. Vol. 38.
- Virchow, Prof. Rudolph. Remarks on evolution. Vol. 19.  
 —— The origin of man. Vol. 24.
- Wace, Henry, the Very Rev. the Dean of Canterbury. On the ethics of beliefs. Vol. 11.  
 —— On the data of ethics. Vol. 14.  
 —— Ethics and religion. Vol. 33.  
 —— Authority. Vol. 41.
- Walker, Rev. Dr. F. A., F.L.S. Oriental entomology. Vol. 21.  
 —— Oriental entomology. Vol. 22.  
 —— Colours in nature. Vol. 23.  
 —— Botany and entomology of Iceland. Vol. 24.  
 —— Herodotus (on Egyptian geology). Vol. 31.  
 —— Hornets, British and foreign. Vol. 33.  
 —— Locusts and grasshoppers. Vol. 34.  
 —— Obituary notice, p. 100. Vol. 37.
- Walkey, Mr. R. H. Archaeology and evolution. Vol. 29.
- Ward, Mr. H. B. Note on earthquake of San Francisco. Vol. 38.
- Warington, Mr. G., F.C.S. Existing relations between science and scripture. Vol. 1.  
 —— Credibility of Darwinism. Vol. 2.  
 —— Biblical cosmogony considered scientifically. Vol. 3.
- Warring, Dr. Chas. B., M.A., Ph.D. Geological exterminations. Vol. 37.
- Watson, Rev. H. C. M. On miracles. Vol. 20.
- Weldon, Rev. G. W., M.A. On the law of creation. Vol. 7.
- Welldon, Bishop, Dean of Manchester. Annual address. Development of the religious faculty in man, apart from revelation. Vol. 39.
- Whateley, Rev. A. R., D.D. The demand for a Christian philosophy. Vol. 43.
- Wheatley, Dr. J. H., Ph.D. On life, its origin. Vol. 3.  
 —— On life, its origin. Vol. 4.
- Whidborne, Rev. G. F. Evolution from geological point of view. Vol. 33.  
 —— Genesis of nature. Vol. 36.  
 —— Biographical notice, p. 320. Vol. 42.
- White, Rev. G. E., Dean of Anatolia College, Turkey. Visit to the Hittite cities. Vol. 33.  
 —— Survivals of primitive religion among people of Asia Minor. Vol. 39.  
 —— The Shia Turks. Vol. 40.
- White, Rev. J., M.A. Remarks on evolution and development. Vol. 19.  
 —— Darwinism and Malthus. Vol. 42.
- Whiting, Rev. J. B. The growth of the kingdom of God. Vol. 37.
- Whitley, Rev. D. Gath. Ivory islands in the Arctic Ocean. Vol. 42.  
 —— Primeval man in Belgium. Vol. 40.
- Whitley, Mr. N. Brixham cavern and its testimony to antiquity of man. Vol. 8.

- Whitley, Mr. N. Palæolithic age examined. Vol. 8.  
— Flint implements of Brixham cavern. Vol. 11.
- Whitmee, Rev. S. J., F.L.S. The ethnology of the Pacific. Vol. 14.
- Wiener, Mr. Harold M., M.A., LL.B. Legislations of Israel and Babylonia. Vol. 41.
- Wilson, Maj.-Gen. Sir C. W., R.E., F.R.S. Recent investigations in Moab and Edom. Vol. 33.  
— The water supply of Jerusalem. Annual Address. Vol. 34.
- Wood, Rev. T., M.A. On the apparent cruelty of nature. Vol. 25.
- Woods-Smyth, Mr. W., L.R.C.S. The Bible in the light of modern science. Vol. 38.
- Wools, Rev. W., Ph.D., F.L.S. Remarks on the past, present, and future of the Australian flora. Vol. 32.
- Wright, Prof. G. Fredk., LL.D., F.G.S. Am. The influence of the glacial epoch upon the early history of mankind. Vol. 40.
- Wright, Rev. W., D.D. The empire of the Hittites. Vol. 21.
- Young, Prof. J. R. On the language of gesticulation and origin of speech. Vol. 1.
- Zwemer, Rev. S. M. Star worshippers of Mesopotamia. Vol. 31.  
— Wahābis; origin, history, tenets and influence. Vol. 33.

## INDEX TO SUBJECTS.

---

### **Aborigines—**

- Religion of aboriginal tribes of India. Avery. Vol. 19.
- Worship and traditions of — of America. Eells. Vol. 19.
- Traditions of — of North America. Peet. Vol. 21.
- of Australia. Fraser, J. Vol. 22.

### **Abram—**

- History in the time of —. Jenkins. Vol. 12.
- Historical evidences of the migration of —. Boscawen. Vol. 20.

### **Africa. The butterflies and moths of —. Kirby. Vol. 23.**

### **Agassiz. Creation according to Darwin, —, and Moses. Kirk. Vol. 4.**

### **Agnosticism—**

- Fundamental assumptions of —. Clarke. Vol. 20.
- On —. Hassell. Vol. 20.

### **Alphabet. The History of —. Taylor. Vol. 12.**

### **America—**

- Common origin of American races with those of the Old World. Titcomb. Vol. 3.

- Traditions of aborigines of North —. Peet. Vol. 21.

- Fauna and origin of —. Lobley. Vol. 40.

### **Ancestral worship. Elwin. Vol. 36.**

### **Anthropology. The true —. Hitchman. Vol. 5.**

### **Arabia. Expedition to — Petrea. Hull. Vol. 21.**

### **Archæology and evolution. Walkey. Vol. 28.**

### **Arianism in its bearing on modern questions. Gwatkin. Vol. 42.**

### **Arrow heads. Flint — of delicate structure. Murray. Vol. 22.**

### **Art. Jewish, Phœnician, and early Greek —. Porter. Vol. 21.**

### **Aryans. Religion and mythology of — of Northern Europe. Brown. Vol. 14.**

### **Arya Somaj. Griswold. Vol. 35.**

### **Asia. On the comparison of Asiatic languages. Conder. Vol. 27.**

### **Asia Minor—**

- Exploration of —. Ramsay. Vol. 39.

- Survivals of primitive religion in —. White, G. E. Vol. 39.

- Lycaonia. Ramsay. Vol. 41.

### **Assur and Nineveh. Pinches. Vol. 42.**

### **Assyriology—**

- Late Assyrian and Babylonian research. Rassam. Vol. 14.

- Some recent discoveries in the realm of —. Pinches. Vol. 26.

### **Astronomy—**

- Used in relation to geological facts and ages. Hopkins. Vol. 2.

- On current physical —. Reddie. Vol. 4.

- Bible and modern —. Birks. Vol. 11.

- Biblical —. Mackinlay. Vol. 37.

- The Bible and —. Maunder. Vol. 40.

### **Atoll. Keeling —. Guppy. Vol. 23.**

**Australia—**

- Aborigines of —. Fraser, J. Vol. 22.  
 Problems of aboriginal art in —. Bishop Thornton. Vol. 30.  
 Flora of —. Woolss. Vol. 32.  
 Ancient script in —. Statham. Vol. 33.  
 Pictorial art among the aborigines. Mathews. Vol. 33.

**Authority.** Wace. Vol. 41.

**Babylonia—**

- Late Assyrian and Babylonian research. Rassam. Vol. 14.  
 Babylonian cities. Rassam. Vol. 17.  
 Nebuchadnezzar of —, recently discovered inscriptions. Budge. Vol. 18.  
 Importance of Babylonian excavations. Petrie. Vol. 22.  
 Religious ideas of —. Pinches. Vol. 28.  
 Inscriptions, etc. Pinches. Vol. 29.  
 Story of creation. Pinches. Vol. 35.  
 Discoveries in —. Pinches. Vol. 41.  
 Legislations of —. Wiener. Vol. 41.

**Bathymetrical.** Dr. Nansen's — researches, Arctic Ocean, etc. Hull.  
 Vol. 37.

**Bible—**

- Difference in scope between — and science. Burnett. Vol. 1.  
 Relations of geological science to Scriptures. Kirk. Vol. 1.  
 Sketch of the relations between — and science. Warington. Vol. 1.  
 Importance of language and phraseology of —. Baylee. Vol. 3.  
 Objections to Divine inspiration of —. Mitchell, W. Vol. 3.  
 Biblical pneumatology and psychology. English. Vol. 6.  
 Biblical interpretation and science. McCaul. Vol. 9.  
 Early dawn of civilization in light of —. Howard. Vol. 9.  
 Magnitudes in creation and bearing on Biblical interpretation. Titcomb.  
 Vol. 9.  
 On harmony between chronology of Egypt and —. Saville. Vol. 9.  
 On Egypt and the —. Howard. Vol. 10.  
 — and modern astronomy. Birks. Vol. 11.  
 Metaphysics of Scripture. Challis. Vol. 11.  
 Biblical proper names from outside sources. Tomkins. Vol. 16.  
 Recent survey of West Palestine and its bearing on —. Saunders.  
 Vol. 17.  
 Recent Egyptological research and —. Tomkins. Vol. 18.  
 — illustrated and confirmed by recent discoveries, etc. Hall. Vol. 23.  
 Scientific research and Biblical study. Girdlestone. Vol. 29.  
 Biblical lands, customs, races, etc. Rassam. Vol. 30.  
 Diseases in —. Chaplin. Vol. 34.  
 Modern theories of construction of —. Tuckwell. Vol. 35.  
 The — in the light of modern science. Woods Smyth. Vol. 38.  
 The last century's witness to —. Sharp. Vol. 43.

**Biology—**

The nature of life. Beale. Vol. 32.

Vitality. Beale. Vol. 33.

Water essential to life. Beale. Vol. 34.

Unseen life of our World. Beale. Vol. 35.

**Bone.** Cuts on — as evidence of man's existence. Hughes. Vol. 23.

**Brixham—**

Its testimony to antiquity of man. Whitley, N. Vol. 8.

Flint implements of — Whitley, N. Vol. 11.

**Bubastis.** Historical results of excavations at —. Naville. Vol. 23.

**Buddhism—**

On ——. Claughton. Vol. 8.

On ——. Collins. Vol. 18.

Contrast between —— and Christianity. Monier Williams. Vol. 23.

—— and the Light of Asia. Collins. Vol. 28.

**Butterflies.** The —— and moths of Africa. Kirby. Vol. 23.

**Canaan, see Palestine—**

—— ancient and modern. Tristram. Vol. 21.

On the Canaanites. Conder. Vol. 24.

**Canary Islands.** The Guanches of ——. Dawson. Vol. 29.

**Captivity.** On cuneiform inscriptions *re* ——. Boscawen. Vol. 18.

**Catholics.** Present position of ——. Galton. Vol. 41.

**Caves—**

Brixham ——. Whitley, N. Vol. 8.

Brixham ——. Whitley, N. Vol. 11.

Torquay ——, etc. Howard. Vol. 13.

—— of South Devon. Howard. Vol. 15.

Hughes. Vol. 21.

**Celtic.** Early —— churches of Britain and Ireland. Hull, Miss. Vol. 38.

**Character.** Springs of ——. Schofield. Vol. 34.

Cheesewring, Cornwall. Hull. Vol. 35.

**China—**

Ethnology and ancient chronology of ——. Gordon. Vol. 23.

Chinese Chronology. Legge. Vol. 25.

Chinese ethics and philosophy. Gordon. Vol. 28.

China's place in ancient history. Gordon. Vol. 29.

**Christianity—**

—— as a moral power. Lias. Vol. 11.

On misrepresentation of ——. O'Neill. Vol. 18.

**Civilization.** Antiquity of ——. Titcombe. Vol. 3.

**Climate—**

—— of India. Fayer. Vol. 15.

—— in relation to organic nature. Gordon. Vol. 17.

Causes of climatic changes. Dawson. Vol. 26.

**Coal.** Our —— resources end of nineteenth century. Hull. Vol. 32.

**Colour—**

Colours in nature. Walker. Vol. 23.

Perception of ——. Stokes. Vol. 31.

**Comets.** Halley's comet. Crommelin. Vol. 42.

Comte. The philosophy of ——. Slater. Vol. 28.

**Confucianism.** Elwin, Arthur. Vol. 37.

**Coral—**

Pedigree of the —— reefs of England. Pattison. Vol. 21.

—— Islands and savage myths. Guppy. Vol. 23.

**Cosmogonies—**

On the Biblical —— scientifically considered. Warington. Vol. 3.

On heathen —— compared with Hebrew. Savile. Vol. 10.

**Creation—**

Doctrine of ——, according to Darwin, Agassiz, and Moses. Kirk. Vol. 4.

Man's place in ——. Macdonald. Vol. 4.

Law of ——, unity of plan, variety of form. Weldon. Vol. 7.

Magnitudes in ——. Titcomb. Vol. 9.

—— and Providence. Howard. Vol. 12.

A Samoan tradition of ——. Powell. Vol. 20.

Accounts of ——. James. Vol. 20.

Light, luminaries, and life in relation to ——. Irving. Vol. 42.

Criticism. Current principles of historic —. Row. Vol. 7.

Crystallization—

Geometrical Isomorphism of crystals, and derivation of cubical system.

Mitchell, W. Vol. 2.

Contrast between — and life. Howard. Vol. 8.

Cuneiform—

— inscriptions of Jewish captivity. Boscawen. Vol. 18.

The — inscriptions at Tel-el-Amarna. Sayce. Vol. 24.

Darwinism—

Credibility of —. Warington, Reddie. Vol. 2.

The creation according to Darwin. Kirk. Vol. 4.

The Darwinian theory. Irons. Vol. 6.

— and its effects on religious thought. Bree. Vol. 7.

— tested by recent researches in language. Bateman. Vol. 7.

Bearing of palæontological facts on —. Nicholson. Vol. 9.

The weak sides of natural selection. Slater. Vol. 26.

— and Malthus. White. Vol. 42.

Deluge—

More than one — recorded in Scripture. Moule. Vol. 4.

The Noachian —. Davison. Vol. 4.

Relation of Bible account of — to physical science. Challis. Vol. 10.

A possible cause of the origin of the tradition of —. Prestwich. Vol. 27.

Hilprecht's fragment on —. Pinches. Vol. 43.

Deontology. Clarke. Vol. 25.

Design—

Structure of geological formations as evidence of —. Howard, D. Vol. 11.

The argument from — in nature. James. Vol. 17.

The theory of —. Duns. Vol. 20.

The theory of —. Duns. Vol. 22.

The philosophic basis of the argument from —. Bernard. Vol. 26.

Evolution and —. Bompas. Vol. 28.

— in nature, note. Kelvin. Vol. 31.

Adaptation and selection in nature —. Kidd. Vol. 34.

Abnormal conditions of water illustrating —. Hull. Vol. 42.

Determinism and free will. Potter. Vol. 42.

Devon. Scientific facts and the caves of South —. Howard. Vol. 15.

Druuids and their religion. Howard. Vol. 14.

Dualism. Monier-Williams. Vol. 25.

Earth—

as an abode fitted for life. Age of —. Kelvin. Vol. 31.

Preparation of — for man's abode. Lobley. Vol. 34.

Nebular and planetesimal theories of the earth's origin. Upham. Vol. 37.

Earthquakes—

San Francisco. Ward, H. B. p. 17, Vol. 38.

Valparaiso and San Francisco. Upham. Vol. 39.

East—

Physical geography of the —. Porter, J. L. Vol. 12.

Sacred books of the —. Monier-Williams. Vol. 21.

Eden. The garden of —. Rassam. Vol. 25.

Education—

Place of science in —. Nicholson. Vol. 10.

Philosophy of —. Schofield. Vol. 33.

Plato's theory of —. Marston. Vol. 42.

**Edom.** Recent investigations in ——. Wilson. Vol. 33.

**Egypt—**

Israel in Egypt. Moule. Vol. 5.

Evidence for sojourn of Israel in ——. Savile. Vol. 6.

Serpent myths in ancient ——. Cooper. Vol. 6.

Harmony between chronology of —— and Bible. Savile. Vol. 9.

On —— and the Bible. Howard. Vol. 10.

Prehistoric man in ——. Dawson. Vol. 18.

Recent Egyptological research in its Biblical relations. Tomkins. Vol. 18.

Egypt: physical, historical, literary, and social. Porter. Vol. 20.

Egyptian discoveries in 1888. Monier-Williams. Vol. 21.

Geological history of ——. Hull. Vol. 24.

Useful and ornamental stones of ancient ——. Dawson. Vol. 26.

Literature of —— in time of Moses. Fradenburgh. Vol. 31.

Geology of ——. Herodotus. Walker. Vol. 31.

Climate of —— in ancient times. Grant Bey. Vol. 32.

Annual address. Petrie, W. Flinders. Vol. 35.

**Elam.** Inscriptions at ——, etc. Pinches. Vol. 29.

**Empire.** True temper of ——. Bruce. Vol. 43.

**Entomology—**

Oriental ——. Butterflies. Walker. Vol. 21.

Oriental ——. Walker. Vol. 22.

Eolithic implements. Bullen. Vol. 33.

**Ether.** The luminiferous ——. Stokes. Vol. 28.

**Ethics—**

Ethical philosophy. English. Vol. 3.

On the ethical condition of Scandinavians. Gosse. Vol. 9.

On the —— of belief. Wace. Vol. 11.

On the data of ——. Wace. Vol. 14.

— and religion. Wace. Vol. 33.

**Ethnography.** Sciences of language and ——. Leitner. Vol. 23.

**Ethnology—**

Ethnic testimonies to the Pentateuch. Titcomb. Vol. 6.

The —— of the Pacific. Whitmee. Vol. 14.

**Eugenics.** Heredity and ——. Caldecott. Vol. 42.

**European.** Fauna of ——, spread of. Lobley. Vol. 39.

**Evidence—**

Scientific facts and Christian ——. Howard. Vol. 7.

On the rules of —— as applicable to credibility of history. Forsyth. Vol. 8.

Nature and character of —— for scientific purposes. McCann. Vol. 10.

**Evolution—**

Bearing of palaeontological facts on ——. Nicholson. Vol. 9.

Breaks in continuity of mammalia fatal to ——. Callard. Vol. 16.

Theory of —— as taught by Haeckel. Hassell. Vol. 16.

Did the world evolve itself? Grimthorpe. Vol. 17.

— of the pearly nautilus. Pattison. Vol. 18.

— by natural selection. Hassell. Vol. 19.

On —— and development. White. Vol. 19.

Remarks on ——. Virchow. Vol. 19.

Relation of fossil botany to theories of ——. James. Vol. 19.

Thoughts on the —— of religions. Blackett. Vol. 19.

Factors of —— in language. Murphy. Vol. 23.

Archæology and ——. Walkey. Vol. 28.

— and design. Bompas. Vol. 28.

Creation or ——. Kidd. Vol. 32.

— from a geological point of view. Whidborne. Vol. 33.

Law of —— in Genesis i. Irving. Vol. 38.

—. Orchard. Vol. 40.

**Exodus.** The route of the ——. Naville. Vol. 26.  
**Ezekiel's vision.** Carus-Wilson. Vol. 41.

**Faith.** Common errors in relation to science and faith. Macloskie. Vol. 32.

**Fatalism.** Robbins. Vol. 7.

**Final cause—**

- as principle in cognition and nature. Morris. Vol. 9.
- Thompson. Vol. 13.
- Dabney. Vol. 20.

**Flint—**

- agricultural implements in America. Dawson. Vol. 11.
- implements of Brixham cavern. Whitley, N. Vol. 11.
- Prehistoric factory of —— at Spiennes. Mello. Vol. 18.
- arrow heads of delicate structure. Murray. Vol. 22.
- bodies in chalk, Paramoudra. Charlesworth. Vol. 26.

**Folk-lore.** Stone ——. Duns. Vol. 28.

**Force—**

- and energy. Brooke. Vol. 7.
- and its manifestations. McCann. Vol. 7.
- Indestructibility of ——. Birks. Vol. 9.

**Genesis—**

- Evolutionary law in Chapter i. Irving. Vol. 38.

**Geology—**

- General character of geological formations. Hopkins, E. Vol. 1.
- Lessons of —— in relation to God. Brodie. Vol. 1.
- Relation of geological science to Bible. Kirk. Vol. 1.
- Changes and ages of continents. Hopkins. Vol. 2.
- Geological chronology. Reddie. Vol. 2.
- Geological proofs of Divine action. Pattison. Vol. 5.
- Introduction of genera and species in geological time. Dawson. Vol. 7.
- See Glacial epoch.
- See Palæolithic.
- Chronology of recent ——. Pattison. Vol. 10.
- Structure of geological formations on evidence of design. Howard, D. Vol. 11.
- Elevation and depression of the British Isles. Hughes. Vol. 14.
- Breaks in continuity of mammalian life. Callard. Vol. 16.
- Volcanoes of West Indies. Spencer. Vol. 35.
- Age of last uprise in British Isles. Hull. Vol. 36.
- Geological extinctions. Warring. Vol. 37.
- Biological change in geological time. Lobley. Vol. 38.

**Glacial epoch—**

- Lapse of time since determined by, etc. Southall. Vol. 13.
- On the recency of the close of ——. Mackintosh. Vol. 19.
- On the post —— period. Upham. Vol. 25.
- The —— period and the earth movement hypothesis. Geikie. Vol. 26.
- Another clause of ——. Hull. Vol. 31.
- The influence of —— on early history of mankind. Wright. Vol. 40.
- Glaciers in New Zealand. Fox. Vol. 40.
- God—**
- Relation of geology's lessons to God. Brodie. Vol. 1.
- Analogies between His methods in nature and revelation. Henslow. Vol. 4.
- A demonstration of the existence of ——. McCann. Vol. 5.

God—*continued*—

Why man must believe in ——? Reddie. Vol. 5.

Is it possible to know ——? Lias. Vol. 17.

—— in nature. Hull. Vol. 24.

On the being of ——. Sinclair. Vol. 33.

Modifications in the idea of ——. Lias. Vol. 34.

Gorilla. Charlesworth. Vol. 20.

## Guanches—

Characteristics of ——. Dawson. Vol. 39.

Skulls of ——. Putnam. Vol. 39.

Habit. An enquiry into the formation of —— in man. Schofield. Vol. 27.

Hades. Descent into ——. MacCulloch. Vol. 43.

Hamburg Congress. Pinches. Vol. 35.

Hammurabi's code. Pinches. Vol. 35.

Heredity and eugenics. Caldecott. Vol. 42.

Herodotus. On Egyptian geology. Walker. Vol. 31.

## Hittite—

Empire of the Hittites. Wright, Rev. W. Vol. 21.

—— cities. White, G. S. Vol. 33.

Hornets. Walker. Vol. 33.

Horus. The —— myth. Cooper. Vol. 12.

## Human responsibility—

Analysis of —— (2 parts). Irons. Vol. 4.

## Ice—

Causes of the ice age. Upham. Vol. 29.

—— age's divisions. Upham. Vol. 33.

——. Howorth. Vol. 38.

## Iceland—

Botany and entomology of ——. Walker. Vol. 24.

——. Stefansson. Vol. 34.

——. Stefansson. Vol. 38.

Inca language. Christian, F. W. Vol. 40.

## India—

Rainfall and climate of ——. Fayrer. Vol. 16.

Religion of the aboriginal tribes of ——. Avery. Vol. 19.

Philosophy and medical knowledge of ancient ——. Gordon. Vol. 25.

Worship of snakes in ——. Fayrer. Vol. 26.

Irrigation works of ——. Odling. Vol. 36.

On Indian customs. Hendley. Vol. 40.

Inspiration. Objections to Divine inspiration of Scripture. Mitchell, W. Vol. 3.

Instinct and reason. Collingwood. Vol. 24.

## Islam—

——. Tisdall. Vol. 25.

Future of ——. Margoliouth. Vol. 35.

## Israel—

—— in Egypt. Moule. Vol. 5.

Synchronous chronology of kings of ——. Fleay. Vol. 36.

Ivory islands in Arctic Ocean. Whitley. Vol. 42.

## Jerusalem—

Water supply of ——. Annual address. Wilson. Vol. 34.

Water supply of ——. Masterman. Vol. 35.

**Joseph—**

Life of — from external sources. Tomkins. Vol. 15.  
**Jurisprudence.** Smith. Vol. 43.

**Kant.** The alleged scepticism of —. Courtney. Vol. 27.

**Keeling Islands—**

Keeling Atoll. Guppy. Vol. 23.

Dispersal of plants —. Guppy. Vol. 24.

**Kingdom of God.** The growth of —. Whiting, Rev. J. B. Vol. 37.

**Krishna.** Collings. Vol. 21.

**Language—**

On — of gesticulation and origin of speech. Young. Vol. 1.

Nature of human —. Baylee. Vol. 3.

Darwinism tested by recent researches in —. Bateman. Vol. 7.

The Etruscan —. Taylor. Vol. 10.

— and the theories of its origin. Brown. Vol. 15.

Sciences of — and ethnography. Leitner. Vol. 23.

Factors of evolution in —. Murphy. Vol. 23.

Comparison of the Asiatic languages. Conder. Vol. 27.

**Lebanon.** Prehistoric man in —. Dawson. Vol. 18.

**Life—**

On —, its origin. Wheatley. Vol. 3.

On —, its origin. Wheatley. Vol. 4.

Spontaneous generation on the problem of —. Kirk. Vol. 5.

Contrast between crystallization and —. Howard. Vol. 8.

On the nature of —. Nicholson. Vol. 14.

The living and the non-living. Beale. Vol. 16.

On certain theories of —. Gordon. Vol. 17.

Chronology of animal — on earth prior to man. Dawson. Vol. 20.

— as compared with physical forces. Slater. Vol. 32.

The nature of —. Beale. Vol. 32.

Light, luminaries and —. Irving. Vol. 42.

**Light—**

Perception of —. Stokes. Vol. 29.

— luminaries, and life, etc. Irving. Vol. 42.

**Locusts and grasshoppers.** Walker. Vol. 34.

**Logic:** Inductive —. Dabney. Vol. 19.

**Logos.** The meaning and history of the — of philosophy. Clarke. Vol. 23.

**Lucerne.** Thickness of — glacier of the post pliocene period. Hull. Vol. 36.

**Lycania.** Ramsay, Sir W. M. Vol. 41.

**Madagascar.** Immigration of Arabs into —. Shaw. Vol. 33.

**Malthus.** Darwinism and —. White. Vol. 42.

**Man—**

Theories of man's past and present condition. Reddie. Vol. 1.

Man's place in creation. Macdonald. Vol. 4.

Bible aspects of man's tripartite nature. Graham. Vol. 6.

Brixham cavern's testimony to antiquity of —. Whitley, N. Vol. 9.

Evidence already obtained *re* antiquity of —. Hughes. Vol. 13.

Contemporaneity of — with extinct mammalia. Callard. Vol. 13.

Modern geogenies and antiquity of —. Birks. Vol. 13.

**Man—*continued*—**

- Science and —. Porter. Vol. 13.  
 Early destinies of —. Howard. Vol. 15.  
 Implements of stone age dividing — and animals. Thompson, J. P. Vol. 15.  
 Pliocene — in America. Dawson. Vol. 15.  
 Origin of —. Bardsley. Vol. 17.  
 Prehistoric — in Egypt. Dawson. Vol. 18.  
 Was primeval — a savage? Hassell. Vol. 19.  
 Antiquity of —. Petrie, Capt. Vol. 20.  
 Chronology of animal life on earth prior to —. Dawson. Vol. 20.  
 Origin of —. Virchow. Vol. 24.

**Mānikka Vācagar.** Pope. Vol. 30.

**Materialism—**

- The present day —. Macdougal. Vol. 10.  
 —. Beale. Vol. 16 (2 papers).  
 —. Richmond. Vol. 16.

**Matter—**

- On the indestructibility of —. Challis. Vol. 12.  
 Certain definitions of —. Howard. Vol. 17.

**Matthew Arnold and modern culture.** Lias. Vol. 12.

**Mediterranean.** Physical conditions of — basin, etc. Hull. Vol. 31.  
**Mencius.** Turner, F. Storrs. Vol. 42.

**Mesopotamia.** Star worshippers of —. Zwemer. Vol. 31.

**Metaphysics—**

- The — of scripture. Challis. Vol. 11.  
 On physiological —. Porter, N. Vol. 14.

**Metallurgy.** The dawn of —. Mello. Vol. 23.

**Meteorites.** On falling stars and —. W. Mitchell. Vol. 1.

**Meteorology.** — : rainfall. Bateman. Vol. 15.

**Mind—**

- On the organ of —. Fisher. Vol. 14.  
 Some relations between — and body. Schofield. Vol. 30.  
 The scope of —. Schofield. Vol. 32.  
 The marks of — in nature. Duns. Vol. 32.

**Minerals.** The — and metals of the Old Testament. Jervis. Vol. 37.

**Miracles—**

- On —. Penny. Vol. 1.  
 On —. English. Vol. 1.  
 On —. Watson. Vol. 20.

- , Science and prayer. Lias. Vol. 29.  
 Scriptural idea of —. Girdlestone. Vol. 30.

- Attitude of science towards —. Gunning Prize. Orchard. Vol. 42.

**Missions.** Science in relation to Christian —. Baylis. Vol. 43.

**Mithraism.** Tisdall. Vol. 43.

**Moab—**

- Moabite stone. Petrie, Capt. Vol. 6.  
 Recent investigations in —. Wilson. Vol. 33.

**Modernism.** Lias. Vol. 40.

**Monism.** Monier-Williams. Vol. 25.

**Monotheism—**

- Prehistoric — in relation to man as savage. Titcomb. Vol. 6.  
 On —. Rule. Vol. 12.  
 Archaic —. Brown. Vol. 13.

**Moral—**

- Origin of — sense. Kirk. Vol. 7.  
 Physical theory of — freedom. Murphy. Vol. 22.

**Morning star.** Mackinlay. Vol. 38.

**Myths—**

- Serpent — in ancient Egypt. Cooper. Vol. 6.  
 The — of Ra. Cooper. Vol. 11.  
 The Horus —. Cooper. Vol. 12.  
 Coral Islands and savage —. Guppy. Vol. 23.

**Nativity.** Date of —. Mackinlay. Vol. 41.

**Nationality.** Hughes, Prof. T. M. Vol. 32.

**Natural Selection—**

- Bearing of palaeontological facts on —. Nicholson. Vol. 9.  
 Evolution by —. Hassell. Vol. 19.  
 The theory of —. Duns. Vol. 22.

**Nature—**

- Methods in — and in revelation. Henslow. Vol. 4.  
 Final cause as principle in —. Morris. Vol. 9.  
 — limits: an argument for Theism. Pattison. Vol. 12.  
 The supernatural in —. Howard. Vol. 16.  
 Climate in relation to organic —. Gordon. Vol. 17.  
 The argument from design in —. James. Vol. 17.  
 The beauty of —. Grunthorpe. Vol. 21.  
 The one origin of the books of Revelation and of —. Stokes. Vol. 22.  
 Colours in —. Walker. Vol. 23.  
 God in —. Hull. Vol. 24.  
 Man's place in —. Petrie. Vol. 24.  
 On the apparent cruelty of —. Wood. Vol. 25.  
 Mechanical conception of —. Macloskie. Vol. 28.  
 Plan and purpose in —. Kidd. Vol. 31.  
 Marks of mind in —. Duns. Vol. 32.  
 Adaptation and selection in —, design. Kidd. Vol. 34.  
 Genesis of —. Whidborne. Vol. 36.

**Nautilus.** Evolution of the pearly —. Pattison. Vol. 18.

**Naville, Ernest.** —'s life. Roget. Vol. 43.

**Negro.** The origin of the —. Titcomb. Vol. 5.

**New Zealand—**

- The Maoris' place in history. Rutland. Vol. 33.  
 Fjords of —. Maclarens. Vol. 34.  
 Hot lakes of —. Boord. Vol. 36.

**Niagara—**

- Recession of — Falls. Upham. Vol. 19. Note.  
 Recession of — Falls. Upham. Vol. 27.

**Nicaragua.** Human footprints in —. Brinton. Vol. 22.

**Nineveh.** Assur and —. Pinches. Vol. 42.

**Norway.** — fjords. Hull. Vol. 34.

**Numerical System.** The — of the Old Testament. Thornton. Vol. 5.

**Ocean—**

- How waters of — became salt. Hull. Vol. 27.  
 Sub-oceanic river valleys, British Isles. Hull. Vol. 30.  
 Sub-oceanic river valleys, West Europe. Hull. Vol. 31.  
 Sub-oceanic river valleys, West Africa. Hull. Vol. 32.  
 Sub-oceanic depression. Lolley. Vol. 33.

**Optimism.** Practical —. Smith, Saumerez. Vol. 21.

**Oriental discoveries—**

- On —. Urquhart. Vol. 37.  
 On —. Robinson. Vol. 38.

**Origin—**

Of man. Bardsley. Vol. 17.

Of man. Virchow. Vol. 24.

Orissa. Hendley. Vol. 39.

**Pacific—**

The ethnology of the —. Whitmee. Vol. 14.

Traditions of Aborigines of islands of — Ocean. Dr. Eells. Vol. 19.

**Palestine—**

Recent survey of West —. Saunders. Vol. 17.

Meteorology of —. Post. Vol. 20.

Botanical geography of —. Post. Vol. 22.

Land tenure in ancient times in —. Neil. Vol. 24.

On the Canaanites. Conder. Vol. 24.

Recent discoveries in —. Masterman. Vol. 39.

**Palæolithic—**

The — age examined. Whitley, N. Vol. 8.

Facts and evolution. Nicholson. Vol. 9.

**Pantheism—**

Principles of modern —. Row. Vol. 8.

On —. Monier-Williams. Vol. 25.

**Pentateuch—**

On high numbers in —. Gosse. Vol. 5.

Ethnic testimonies to —. Titcomb. Vol. 6.

On Samaritan text of —. Garret. Vol. 36.

**Pessimism. James. Vol. 18.****Petra. Hull. Vol. 21.****Philology. On comparative —. Thornton. Vol. 1.****Philosophy—**

The relation of reason to —. Row. Vol. 3.

Ethical —. English. Vol. 3.

Philosophical principles in Mr. Buckle's history. Row. Vol. 3.

The testimony of — to Christianity as a moral and spiritual revelation.  
Row. Vol. 5.

Natural theology and modern —. Henslow. Vol. 7.

Influence of true and false —. Howard. Vol. 12.

— and evolution. Orchard. Vol. 40.

The demand for a Christian —. Whateley. Vol. 43.

**Phyllotaxis. Henslow. Vol. 6.****Plants—**

Polynesians and their — names. Guppy. Vol. 29.

— Distribution. Guppy. Vol. 39.

**Pliocene. — man in America. Dawson. Vol. 15.****Polynesians. — and their plant names. Guppy. Vol. 29.****Prayer—**

Relation of science to —. Kirk. Vol. 2.

Miracles, science and —. Lias. Vol. 29.

**Primeval man in Belgium. Whitley. Vol. 39.****Primitive man. Mello. Vol. 30.****Primeval history. Uses of. MacCausland. Vol. 3.****Procopius. —'s African monument. Rouse. Vol. 34.****Protection. Methods of — of. Kid. Vol. 33.****Providence. Creation and — Havard. Vol. 12.****Psychology—**

On comparative —. Morshead. Vol. 3.

On comparative —. Morshead. Vol. 5.

Biblical —. English. Vol. 6.

**Psychology—*continued.***

- On comparative —. Morshead. Vol. 12.  
 —. Turner, F. Storrs. Vol. 37.  
 —. Smith, I. Gregory. Vol. 43.

**Qādiān.** The Messiah of —. Griswold. Vol. 37.  
**Queensland.** Artesian water in —. Jack. Vol. 34.

**Ra.** The myth of Ra. Cooper. Vol. 11.

**Rainfall—**

- Meteorology —. Bateman. Vol. 15.  
 — and climate of India. Fayrer. Vol. 15.

**Rajputana.** Hendley, Col. T. H. Vol. 37.  
**Rank.** Principles of — among animals. Parker. Vol. 27.

**Reason—**

- Relation of — to philosophy, theology and revelation. Row. Vol. 3.  
 Identity of — in science and religion. Mitchell, R. Vol. 8.

Instinct and —. Collingwood. Vol. 24.

**Reconstruction.** Thompson, S. P. Vol. 37.

**Rectitude.** The science of — as distinct from expedience. Clarke. Vol. 24.  
**Red Sea.** Passage of — by Israelites. Tulloch. Vol. 28.

**Religion—**

Identity of reason in science and —. Mitchell, R. Vol. 8.

Relation of thought to —. Cotterill. Vol. 12.

Modern science of —. Blencowe. Vol. 15.

Relation of science and —. Cotterill. Vol. 15.

On comparative —. Note. Vol. 19.

Some characteristics of primitive —. Collins. Vol. 19.

Science and —. Petrie. Vol. 23.

Modern science and natural —. Ashwin. Vol. 23.

Religions of the East—

Some thoughts on the evolution of —. Blackett. Vol. 19.

List of Society's publications on —. Vol. 30.

**Responsibility—**

On human — (2 parts). Irons. Vol. 4.

On human —. Blencowe. Vol. 19.

On human —. Grimthorpe. Vol. 25.

**Resurrection.** The — of our Lord and Saviour Jesus Christ. Girdlestone.  
 Vol. 37.

**Revelation—**

Relation of reason to —. Row. Vol. 3.

Analogous methods of deity in nature and —. Henslow. Vol. 4.

Absence of opposition between science and —. Stokes. Vol. 17.

Science not opposed to —. Porter. Vol. 18.

One origin of the books of — and of nature. Stokes. Vol. 22.

**Röntgen rays.** Stokes. Vol. 30.

**Samaritan—**

text of Pentateuch. Garrett. Vol. 36.

Passover of the year 1861. Hammond. Vol. 36.

**Samoa.** A — tradition of creation. Powell. Vol. 20.

**Scandinavians.** On their ethical condition. Gosse. Vol. 9.

**Scepticism—**

The logic of —. Thornton. Vol. 2.

The credulity of —. Thornton. Vol. 4.

Anarchy of modern unbelief. Boultbee. Vol. 8.

The varying tactics of —. Thornton. Vol. 9.

Modern philosophic — examined. Main. Vol. 10.

## Science—

- Mutual helpfulness of theology and physical —. Gladstone. Vol. 1.  
 Difference in scope between scripture and —. Burnet. Vol. 1.  
 A sketch of the relations between scripture and —. Warington. Vol. 1.  
 Relation of — to prayer. Kirk. Vol. 2.  
 Simplification of first principles in physical —. Brooke. Vol. 3.  
 Immediate derivation of — from great first cause. Laming. Vol. 3.  
 Provinces of the observer and reasoner in — investigation. Gabbett. Vol. 4.  
 Identity of reason in — and religion. Mitchell, R. Vol. 8.  
 Biblical interpretation and —. McCaul. Vol. 9.  
 Place of — in education. Nicholson. Vol. 10.  
 Uncertainties of modern physical —. Birks. Vol. 11.  
 Relation of scientific thought to religion. Cotterill. Vol. 12.  
 — and man. Porter, N. Vol. 13.  
 Bearings of study of — upon our religious ideas. Stokes. Vol. 14.  
 Modern — of religion. Blencowe. Vol. 15.  
 Relation of — and religion. Cotterill. Vol. 15.  
 Absence of opposition between — and revelation. Stokes. Vol. 17.  
 — not opposed to revelation. Porter. Vol. 18.  
 Note on — and religion. Petrie. Vol. 23.  
 Modern — and natural religion. Ashwin. Vol. 23.

**Self.** On the reality of the —. Courtney. Vol. 25.

## Serpents—

- myths in ancient Egypt. Cooper. Vol. 6.  
 Sun and — worship. Phene. Vol. 8.  
 On — worship and the venomous snakes of India. Fayerer. Vol. 26.

**Shishak.** The list of —. Maspero. Vol. 27.

**Sidon.** Discoveries at —. Vol. 21.

## Sinai—

- The topography of the — peninsula. Holland. Vol. 14.  
 Where is Mount —? Hull. Vol. 31.  
 Researches in —. Prof. Petrie. Vol. 39.

**Socialism.** On Christianity and —. Cunningham. Vol. 41.

**Sound.** — and colour. Macdonald. Vol. 32.

**South Africa.** Experiences in the war. Frazer. Vol. 35.

**Space.** Time and —. Arthur. Vol. 22.

## Species—

- Introduction of — in geological time. Dawson. Vol. 7.  
 — and their origin. Gerard. Vol. 42.

## Spencer, Herbert—

- On — philosophy. Ground. Vol. 16.  
 On — theory of the will. Ground. Vol. 16.

**Spiniennes.** Factory of flints at —. Mello. Vol. 18.

**Sphinx.** Note on excavations round —. Maspero. Vol. 20.

**Spontaneous generation.** — or problem of life. Kirk. Vol. 5.

## Stars—

- worshippers of Mesopotamia. Zwemer. Vol. 31.

Origin of new —. Ball. Vol. 33.

Falling —. Meteorites.

Sidereal universe. Gill. Vol. 43.

## Stone age—

Date of the polished —. Southall. Vol. 13.

Implements of — man, and animals. Thompson, J. P. Vol. 15.

Structure. — and structureless. Beale. Vol. 20.

**Sun.** On — worship. Phene. Vol. 8.

**Supernatural.** On the credibility of the —. O'Neill. Vol. 16.

**Syria—**

- Meteorology of —. Post. Vol. 20.  
 Botanical geography of —. Post. Vol. 22.

**Tanganyika.** Marine fauna of —. Hudleston. Vol. 36.  
**Tel el Amarnâ.** On the cuneiform inscriptions of —. Sayce. Vol. 24.  
**Thalassography.** On North Sea. Jervis. Vol. 32.

**Theism—**

- Mill's essay on —. Irons. Vol. 9.  
 Unconscious intelligence as opposed to —. Morris. Vol. 11.  
 Nature's limits, an argument for —. Pattison. Vol. 12.

**Theology—**

- Mutual helpfulness of — and natural science. Gladstone. Vol. 1.  
 — as a science. De la Mare. Vol. 3.  
 Relation of reason to —. Row. Vol. 3.  
 Natural — and modern philosophy. Henslow. Vol. 7.  
 Comparative —. MacCulloch. Vol. 43.

**Theosophy.** Coles. Vol. 43.

**Thothmes—**

- Names on the list of —. Maspero. Vol. 20.  
 Names on the list of —. Maspero. Vol. 22.

**Thought—**

- The unknown in modern —. Lias. Vol. 17.  
 The influence of physiological discoveries on —. Frost. Vol. 37.

**Time.** — and space. Arthur. Vol. 22.

**Tithegiving.** — among ancient Pagan nations and note by MacMüller on same. Lansdell. Vol. 31.

**Turkey.** Shia Turks. White, G. E. Vol. 40.

**Ultramontanism.** Lias. Vol. 40.

**Unity.** The — of truth. Annual address. Temple. Vol. 32.

**Universe—**

- Examination of the unseen —. Irons. Vol. 11.  
 Action of the will in formation of —. O'Neill. Vol. 15.  
 Modern conceptions of —. Searle. Vol. 42.  
 Scheme of —. Girdlestone. Vol. 43.  
 Sidereal —. Gill. Vol. 43.

**Unseen world.** On science and —. Schofield. Vol. 41.

**Utilitarianism.** Reddie. Vol. 2.

**Victoria, Queen—**

- Communications from —. Her Jubilee. Vol. 29.  
 Death of —. Vol. 33.

**Volcanoes—**

- of West Indies. Spencer. Vol. 35.  
 Volcanic action and West Indian eruptions of 1902. Lobley. Vol. 35.  
 Volition. From reflex action to —. Hill. Vol. 26.

**Wahâbîs.** Origin, history, etc., of —. Zwemer. Vol. 33.

**Will—**

- The action of — in the formation of universe. O'Neill. Vol. 15.  
 On Herbert Spencer's theory of the —. Ground. Vol. 16.

**Zodiac.** The zodiacal arrangement of stars. Grimaldi. Vol. 38.

**Zoroaster—**

- The system of — and archaic Monotheism. Brown. Vol. 13.  
 On — Philosophers. Monier-Williams. Vol. 25.

# CONTENTS OF SUBSEQUENT VOLUMES.

## VOL. XLIV.

- Annual Address. Modern Unrest and the Bible. By SIR ANDREW WINGATE, K.C.I.E  
The Genealogies of our Lord. By Mrs. A. S. LEWIS, LL.D.  
Natural Law and Miracle. By Dr. LUDWIG VON GERDTELL.  
The Greek Papyri. By The Rev. Professor G. MILLIGAN, D.D.  
The Conditions of Habitability of a Planet, with Special Reference to the Planet Mars. By E. WALTER MAUNDER, Esq., F.R.A.S.  
The Historicity of the Mosaic Tabernacle. By the Rev. Professor JAMES ORR, D.D.  
The Real Personality or Transcendental Ego. By SYDNEY T. KLEIN, Esq., F.L.S., F.R.A.S.  
Difficulties of Belief. By the Right Rev. THE BISHOP OF DOWN.  
Some Lucan Problems. By Lieut.-Colonel G. MACKINLAY.  
Archaeology and Modern Biblical Scholarship. By the Rev. JOHN TUCKWELL, M.R.A.S.  
Adaptation in Plants and Animals to their Conditions of Life are the Result of the Directivity of Life. By the Rev. Professor G. HENSLOW, M.A.  
International Arbitration in the Greek World. By MARCUS N. TOD, Esq., M.A.  
The Influence of Babylonian Conceptions on Jewish Thought. By the Venerable Archdeacon BERESFORD POTTER, M.A.  
Index of Authors and Subjects in 43 previous volumes.

## XLV.

- Annual Address. From Suez to Sinai. By ARTHUR W. SUTTON, Esq., I.P.F.L.S. (Illustrations).  
Immortality. By the Rev. A. R. WHATELY, D.D.  
Present Day Factors in New Testament Study. By the Rev. Professor R. J. KNOWLING, D.D.  
The Fact of Prediction. By the Rev. JOHN URQUHART.  
Vision in Sacred and other History. By the Rev. J. H. SKRINE, M.A., D.D.  
Methods of Biblical Criticism. By the Ven. Archdeacon WILLIAM SINCLAIR, D.D.  
Pompeii. By E. J. SEWELL, Esq.  
The Bearing of Archaeological and Historical Research on the New Testament. By the Rev. PARKE P. FLOURNOY, D.D. (being the Gunning Prize Essay, 1912).  
The Samaritan Pentateuch, and Philological Questions connected therewith. By the Rev. J. IVERACH MUNRO, M.A.  
The Origin of Life, what do we know of it? By Professor G. SIMS WOODHEAD, M.A., M.D.  
Old Testament Criticism, its Position and Principles. By the Very Rev. H. WACE, D.D., Dean of Canterbury.

## XLVI.

- Annual Address. Jerusalem, Past and Present. By Colonel Sir CHARLES M. WATSON, K.C.M.G.  
The Fall of Babylon and Daniel v. 30. By the Rev. ANDREW CRAIG ROBINSON, M.A.  
Japan, and some of its Problems, Religious and Social. By the Rev. Prebendary H. E. FOX, M.A.  
The Christian Doctrine of Atonement. By the Rev. H. J. R. MARSTON, M.A.  
Is the so-called "Priestly Code" of Post-exilic date? By the Rev. CHANCELLOR LIAS, M.A.  
The Character of the Bible inferred from its Versions. By the Rev. T. H. DARLOW, M.A.  
The Number of the Stars. By SYDNEY CHAPMAN, Esq., B.A., D.Sc., Chief Assistant of the Royal Observatory, Greenwich.  
The First Chapter of Genesis. By E. WALTER MAUNDER, Esq., F.R.A.S.  
The Latest Discoveries in Babylonia. By T. G. PINCHES, Esq., LL.D., M.R.A.S.  
Frederic Godet, Tutor of Frederick the Noble. By Professor F. F. ROGET.  
The Composite of Races and Religions in America. By the Rev. S. B. MCCORMICK, D.D., Chancellor of Pittsburg University, U.S.A.  
The Supremacy of Christianity. By the Right Rev. Bishop J. E. C. WELDON, D.D.









